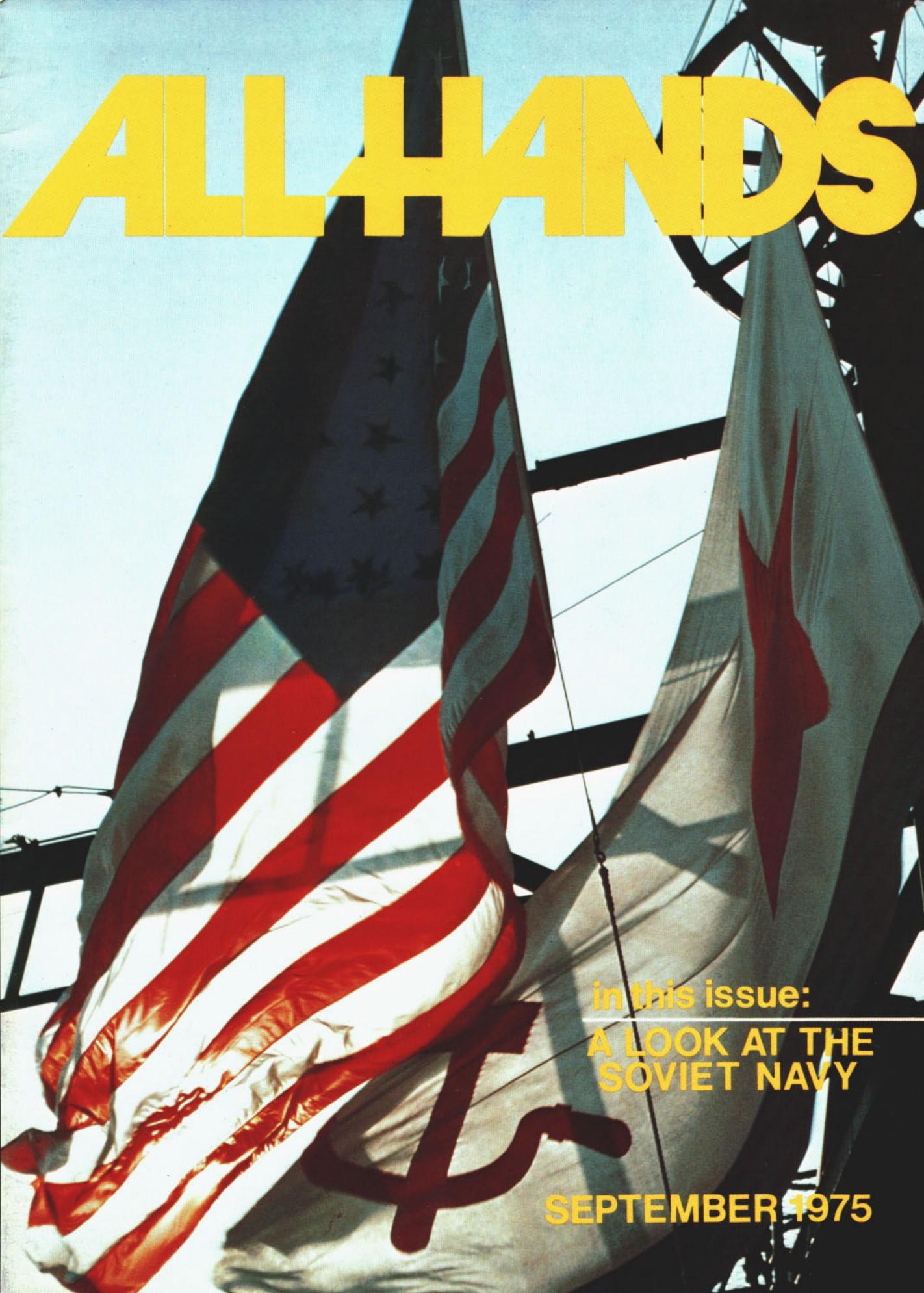


ALL HANDS

A large American flag is shown flying from a ship's mast. The flag is partially obscured by the ship's structure and rigging. The background is a bright, clear sky.

in this issue:
A LOOK AT THE
SOVIET NAVY

SEPTEMBER 1975



ALL HANDS

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TABLE OF CONTENTS

Features

Soviet Ships Visit Boston	2
U. S. Navy Ships Visit USSR	4
A Look at the Soviet Navy	6
A U. S. Sailor in the Soviet	18
Second Time Around—U. S. Naval Officer Revisits Leningrad	21
Operational Test and Evaluation Force	22
The Sanctuary Experience	28
Sequoia: Fitting Out the Presidential Yacht	34
Skinny Dragons of VP-4	46
Second Class Diving School, San Diego	50
Underwater Photography	52
Profile of a Ship and Her Crew— USS Compass Island	60

Departments

From the Desk of MCPON—"Changing the Watch . . . And Introducing"	38
Naval War College—Off-Campus and Correspondence Courses	41
Navy News Briefs	42
Profiles of the Fleet	54
Letters to the Editor	62
Navy Humor	63
Taffrail Talk	64

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Left: A Patrol Squadron 17 (VP 17) P-3B Orion patrol aircraft in flight in the vicinity of the Soviet Fleet replenishment ship Vladimir Kolechitsky.

FRONT COVER: When U. S. Navy warships entered the port of Leningrad and Soviet Navy warships entered the port of Boston on exchange visits, viewers had the unusual experience of seeing the flags of these two sea powers flying together. For more on these visits and a "Look at the Soviet Navy," see the following pages.

BACK COVER: The decorative presentation featuring the theme of the United States "Doing Business at the Same Location for 200 years" is by ALL HANDS artist Michael Tuffli.

SOVIET SHIPS VISIT BOSTON



Soviet warships made a port visit to the United States on 12 May for the first time since World War II.

While USS *Leahy* (CG 16) and USS *Tattnall* (DDG 19) were calling at Leningrad, the Soviet destroyers *Boyky* and *Zhguchy*, both *Kanin*-class DDGs, steamed into Boston harbor for a six-day stay. As they arrived they exchanged salutes with an Army National Guard battery on Castle Island and then with USS *Albany* (CG 10), which had arrived the day before. *Albany* was flagship of Vice Admiral Stansfield Turner, Commander of the U. S. Second Fleet.

This exchange of ship visits was part of the activities scheduled by the United States and the Soviet Union to commemorate the 30th anniversary of the end of World War II in Europe, V-E Day. As such it was an

exceptionally smooth and successful operation.

In his remarks upon arrival in Boston, Admiral Turner set the tone of the week's events, saying, "I look on this as a very normal activity—an exchange visit of warships between two countries who have friendly relations."

The Soviets' schedule was crammed with engagements designed to give them the broadest possible view of the American way of life. The formality of initial courtesy calls between Rear Admiral A. M. Kalinin, the task group commander, and local military and political dignitaries quickly dissolved into friendly relaxation as a full social schedule took effect.

Beginning with receptions in Boston and at the South Weymouth Naval Air Station on their first day in port,

the Russians soon entered into the spirit of informality and personal contact which characterized their stay. Throughout the week, a continuing series of exchanges among the officers and men of *Boyky*, *Zhguchy* and *Albany* permitted U. S. and Soviet navymen a unique insight into shipboard routine and living conditions of their counterparts. Highlight of these activities was a midweek dinner aboard *Albany* for a large contingent of the Soviet crews, after which the visitors staged a display of traditional Soviet dances on *Albany*'s fantail.

Few could have predicted the interest the visiting ships elicited among the citizens of the city. It was sustained and intense. During the 14 hours of total public visiting, *Boyky* and *Zhguchy* attracted an estimated 40,000 curious Bostonians. In fact, visiting was extended two hours on the last day to accommodate the crowds.

Invitations poured in from local organizations and citizens, offering everything from barbecue dinners to chess matches, most of which had to be declined because of a hectic schedule. Nevertheless, the Soviet

Facing page top: Photographers film a Soviet sailor on fantail of Soviet guided missile destroyer *Boyky*. **Left:** Members of the Massachusetts National Guard stand by to fire salute as Soviet destroyer *Boyky* enters harbor. **Below:** The Commander Second Fleet, VADM S. Turner, waves as the Soviet ships make their departure from Boston harbor.

sailors had numerous opportunities to observe local events and see places of interest at firsthand. Their itinerary included tours of Boston's Freedom Trail, the New England Aquarium, the Museums of Science and Fine Arts, Boston University, M. I. T., the circus and a Red Sox game at Fenway Park.

One tour bus stopped at a fast-food chain store where the visitors were treated to a free lunch. And above all, the Soviets were granted liberty throughout the week which afforded complete exposure to the city of Boston. The personal contacts with the public generated by general ship visiting and Soviet in-port liberty seemed uniformly friendly and warm.

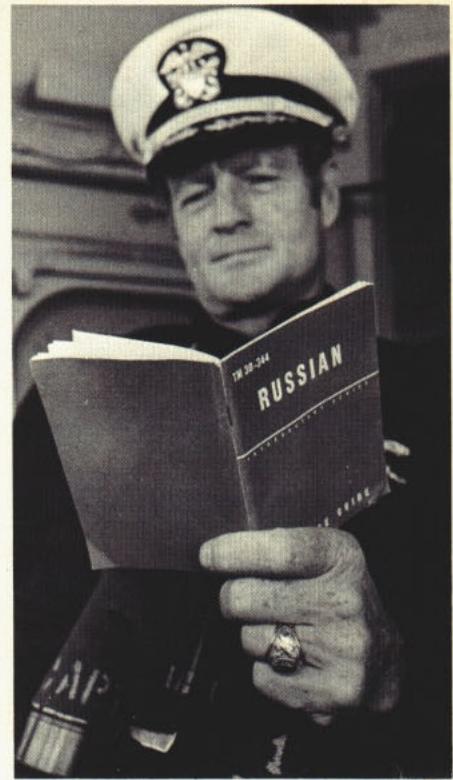
The degree of popular interest in the Soviet ships ran parallel to that of the media. Virtually all major New England newspapers and television stations ran daily reports of the progress of the visit and local radio stations covered it almost hourly.

Admiral James L. Holloway III, Chief of Naval Operations, paid a courtesy call on Rear Admiral Kalinin aboard his flagship, *Boyky*. This and the arrival of Soviet Ambassador A. M. Dobrynin at the outset of the port call, provided extra interest by the area's media.

Net effect of the six-day Boston visit was to provide the visiting sailors and their hosts with a valuable insight into each other's way of life.



US NAVY SHIPS VISIT USSR



"Fantastic," is the word most sailors of the Norfolk-based *USS Leahy* (CG 16) and the Mayport-based *USS Tammall* (DDG 19) used to describe their recent port visit to Leningrad in the Soviet Union.

The first two American warships to visit the Soviet Union since World War II formed Task Group 100.1, commanded by Rear Admiral Justin E. Langille, III, Commander Cruiser-Destroyer Group 12.

Throughout the five-day Leningrad call in May, which coincided with the 30th anniversary of V-E Day,

the American officers and men had unrestricted liberty in the city of 4.3 million. They were able to meet and talk with the people on the streets, go shopping and take photographs of landmarks and tourist attractions.

The U. S. Navymen were intrigued by the architecture of Leningrad, the "Venice of the North." The city was created in the 18th century by Czar Peter the Great who used Italian architects to construct it on some 40 islands of the Neva River and its tributaries.

Each day of the visit, the Soviet navy provided a

number of tours, including visits to the world-famous Hermitage Art Museum, a collective farm, civilian and naval schools, and Petrodvoretz—the baroque, former summer palace of the Romanovs.

Transportation by city buses and trams was extended free to the American Navymen, as it is to all Soviet military personnel. The uniform was the ticket.

Special evening entertainment for the crews included ballet, opera, circus and popular music performances in Leningrad halls and auditoriums. Many were also able to see an ice hockey game between Leningrad and Moscow, where each ship received a souvenir hockey stick in an after-game presentation.

For most Soviets and Americans, meeting each other

Left: CAPT Alexander Sinclair, CO of USS Leahy, prepares for Russian visit. Bottom left: USS Leahy docks at Leningrad pier. Below: Soviet honor guard for arrival of USS Leahy and Tatnall in Leningrad.

was the highlight of the five days. Tens of thousands of Leningraders lined the pier each day to talk with the American sailors; during two afternoons of visiting, a total of more than 13,000 boarded the ships.

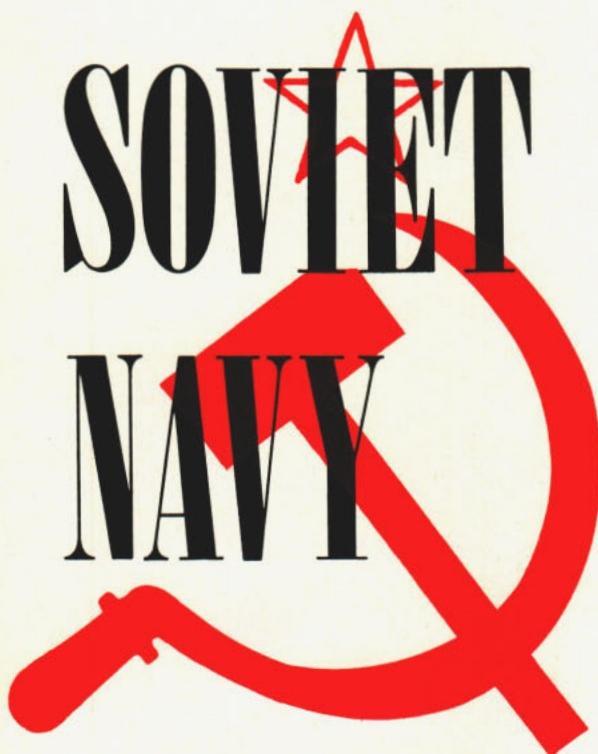
The Soviets are lapel-pin collectors and display them profusely on their coats and jackets. This turned out to be the greatest medium of communication between them and the Americans. These highly negotiable items were traded for anything American, from chewing gum to old petty officer rating badges. Toward the end of the visit many of the American crewmembers began to look like war heroes, festooned with dozens of pins, most of which were in commemoration of the 30th anniversary of V-E Day.

The Americans also had close contact with the Soviets at officer and petty officer functions hosted by the Soviet Navy and at two afternoon volleyball and basketball games with students of Leningrad physical education schools.

Leahy and *Tatnall* provided tours on board, and a dinner reception was held aboard *Leahy*.



A LOOK AT THE



Following the exchange visits of U. S. Navy ships to Leningrad and Soviet Navy ships to Boston, many American sailors expressed a desire to know more about the Soviet Navy. Here is a brief historical report, followed by a roundup account of the Soviet Navy as it looks today.

HISTORICAL ROU

"Every potentate who has only ground forces has only one hand; yet whoever has a navy too, has both hands." So saying, Peter I (The Great), Czar of Russia, began to build his second hand in the early 1700s to fight Sweden. In the 275 years since, the Russian Navy has indeed become a strong second hand. Today, it's one of the biggest and best in the world. But it hasn't always been so.

Peter built his Navy, defeated the Swedes and established Russia as *the* maritime nation in the Baltics. Unfortunately, this was the last great Russian sea victory for the next two and one-half centuries. There were some victories in the 18th century against the Turkish Navy, but Russian ambitions were generally frustrated by the more powerful British and French navies.

At the beginning of the 20th century, there was little relief from these frustrations. The Russians suffered overwhelming defeats in the 1904-1905 war with Japan. A decade later in WWI, the Navy found itself overshadowed by the Army's needs and impotent against Germany. The Russian Navy ranked last among the sea services of the world's major nations.

In 1917, the Revolution erupted and the navy had a brief shining moment. Baltic Fleet sailors supported the Bolsheviks and were, according to Lenin, "the glory and pride of the revolution." They played leading roles in breaking up the elected Constituent Assembly and in the Cheka, an organization set up by Lenin to eliminate Bolshevik enemies. Following the successful revolt, Baltic Fleet sailors did a turnaround and demonstrated for free elections, press, speech and land use, and an end to absolute Bolshevik control. Riots broke out and the "counter revolution" was ruthlessly suppressed. Sailors were purged and the Navy was placed under the tight control of political commissars. The Russian Navy's brief moment of glory had ended. All that remained was one battleship, eight destroyers and some small craft. Other maritime activities, including shipbuilding, also stopped.

Post-revolution economic and political problems deterred further naval build-up. Three battleships, two cruisers and several small craft were recommissioned by 1924, but no large ships would be built until the 1930s.

In 1928, a series of national economic plans was begun which included rebuilding the Navy. In the first phase several small, defensive ships were built along with five submarines from old German plans. The second phase, begun in 1933, saw a sudden shift to large surface ships after Stalin had been convinced by some of his naval officers that he needed a large ocean-going Navy. Destroyers and cruisers were launched, and

three old battleships extensively modernized. The third phase saw large ship construction go into full swing.

As Admiral Nikolai G. Kuznetsov, commander of the Soviet Navy at the time, wrote: "It was decided to build battleships, heavy cruisers, and other classes of surface warships; that is, a big surface navy. A large number of submarines were also built. Not excluded either was the construction of aircraft carriers; rather they were only postponed to the last year [of the economic plans, 1942, because of] the complexities of construction of warships of this class and aircraft designed especially for them."

The final economic phase abruptly ended when Hitler's army invaded Russia in June 1941. As the Soviets went into WWII, their ocean-going Navy was far from impressive. In spite of the economic plans it consisted of three pre-WWI battleships; 10 cruisers, only two of which were new; 66 destroyers, half of them old; and 218 submarines, the largest sub fleet in the world at the time. Only the subs were active against the German Navy during the war, and their performance was often poor. The rest of the fleet was used mainly for coastal defense and to support land operations. Generally, during WWII the Soviet Navy showed poor tactics, along with poor equipment and morale and demonstrated, as well, little aggressiveness. The only bright spot was the river flotillas which played an important role in many land battles.

WWII had devastating effects on Russia. A third of the country had been overrun by German armies, 20 million had been killed and millions more were crippled. Industry and the economy were in shambles.

The Navy was at an all time low. Industry was incapable of rebuilding and sailors were needed elsewhere to help get the country back in shape. Yet, Stalin declared that "the Soviet people wish to see their fleet grow still stronger and more powerful." By the late 1940s, the Soviets, with the help of German engineers from occupied territory and German technology, had shipyards back in operation.

In March 1953 Stalin died, and with him, the plans for the ocean-going Soviet Navy. Within months shipbuilding programs were cut back or canceled and new Soviet leaders, who were concerned with political problems, shifted the emphasis to building submarines and merchant ships. Only 14 of the 24 light cruisers planned by Stalin were ever completed, and none of his large cruisers or battleships was finished.

Nikita Khrushchev, a man of the land, with little understanding of the concept of seapower, ascended to power. Declaring that "cruisers and other big war-

ships were suitable only for carrying officials on state visits, he halted work on big ships already under construction, and then began dismantling battleships, cruisers and destroyers. Aircraft strength was also reduced and thousands of sailors were released from duty. To replace these ships, and to counter the U. S. Navy build-up begun during the Korean War, Khrushchev began building a defensive Navy of nuclear-powered, missile-carrying and attack submarines, missile destroyers and other small craft.

Fortunately for the Soviet Navy, 45-year-old Sergei S. Gorshkov was appointed Admiral of the Fleet of the Soviet Union in the midst of Khrushchev's naval reformation. ADM Gorshkov had gained his reputation in WWII as commander of one of the Soviet river flotillas and won promotion to rear admiral at age 31. Many consider him to be the most brilliant man ever to serve in the Soviet Navy.

In any case, Gorshkov knew the value of big ships and he knew their place in the world of sea control. While he accelerated Khrushchev's nuclear and missile research and submarine programs, he also managed to influence the premier's thinking on shipbuilding and to drag his feet on scrapping.

Gorshkov's foresight and knowledge of the use and mission of naval forces are largely responsible for the Soviet Navy's position today. In spite of his influence and efforts, Gorshkov was unable at first to get construction of a balanced fleet going. But a number of international political events eventually helped him to achieve his goal. In 1956 when British, French and Israeli naval forces invaded the Suez area, and in 1958 when U. S. naval forces landed in Lebanon, the Soviet leaders realized they couldn't intervene because their Navy was inadequate. The lesson was reinforced in the fall of 1962 when a U. S. blockade was able to thwart Soviet plans to put missiles and bombers in Cuba. Soviet leaders opted for a stronger Navy.

Another important decision was made as a result of these incidents. In 1963 the Soviet chief ordered his Fleet to sea, and it began operating away from its traditional coastal areas. By mid-1964, five Soviet warships were permanently based in the Mediterranean Sea. During the 1967 Arab-Israeli War, the flow of Soviet ships into the Med became a steady stream and at least 50 ships are now normally on station there. The expansion into other oceans soon followed. Soviet ships began regular operations in the Indian Ocean in the late 1960s, in the Caribbean in 1969 and off the West Coast of Africa in late 1970. The Soviet Union had at last developed its large, ocean-going Navy.



SOVIET SHIPS . . . SUBMARINES

The Soviet Union has been a world leader in submarine forces since shortly before WWII. In September 1939, when war broke out, it had 185 subs, compared to Germany's 57. Within two years the Soviets had built that up to 218. They have continued to stress submarine development and today have over 300 subs in the active fleet. More than one-third of these are nuclear powered, and over 40 per cent of the total submarine fleet carries missiles. Some of the more important classes of Soviet submarines are:

- *Foxtrot class.* A 300-foot-long, diesel-powered attack (SS) submarine armed with 10 torpedo tubes. This class was introduced into the fleet in the late 1950s, and some 55 are still in active service.

- *Golf class.* A 320-foot-long, diesel-powered ballistic missile (SSB) submarine armed with three *Serb* missiles with a range of about 650 miles, plus torpedoes. This class was originally built to carry a missile with a 350-mile range, but most were later modified for the longer range ones. The modified *Golf* subs can fire their missiles while submerged. Ballistic missiles are pre-targeted for use against land targets. Twenty-two of this class were built between 1958 and 1962.

- *Hotel class.* A 380-foot-long, nuclear-powered ballistic missile (SSBN) submarine armed with three *Serb* missiles, plus torpedo tubes. Nine of these boats were built between 1958 and 1962.

- *November class.* A 360-foot-long, nuclear-powered attack (SSN) submarine armed with eight torpedo tubes. The Soviets' first nuclear-powered sub, she was probably underway in 1959, but the official announcement was not made until October 1960. Fourteen of these subs were built between 1958 and 1963.

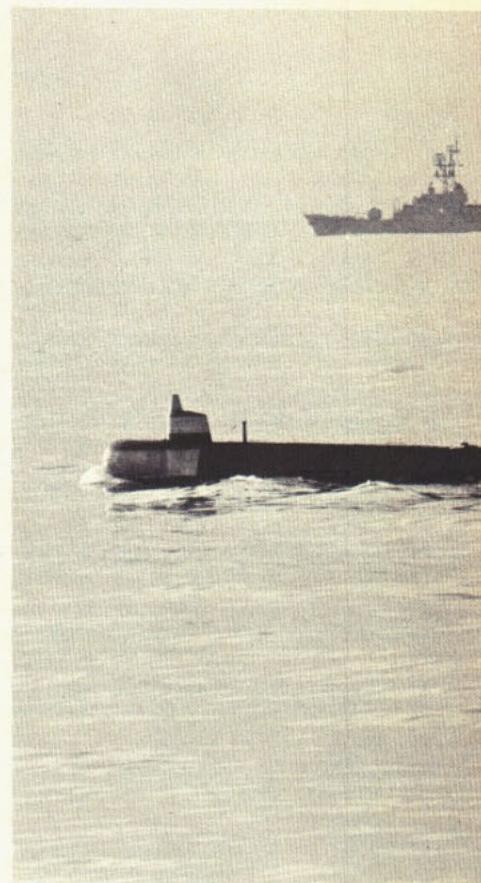
- *Echo class.* A 380-foot-long, nuclear-powered anti-ship cruise missile (SSGN) submarine armed with six 400-mile-range *Shaddock* missile tubes (the range capability may vary), plus torpedo tubes. Five of these subs were built from 1960 to 1962. In 1963, a larger *Echo-II* class was launched which has eight missile tubes. By 1967, 27 *Echo-IIs* were built. Their greatest drawback is that they must surface to fire their missiles.

- *Juliett class.* A 280-foot, diesel-powered cruise missile (SSG) submarine armed with four *Shaddock* missile tubes, plus torpedoes. About 16 of these were built during the early 1960s.

- *Victor class.* A 285-foot-long, nuclear-powered attack (SSN) submarine armed with torpedoes. Developed as a follow-on to the *November* class, *Victor* is capable of speeds over 30 knots submerged.

- *Yankee class.* A 425-foot-long, nuclear-powered ballistic missile (SSBN) submarine armed with 16 missiles which have a range of 1300 miles, plus torpedoes. This "Polaris" type sub had her initial sea trials in 1968 and 34 have been built.

- *Charlie class.* A 295-foot-long, nuclear-powered cruise missile (SSGN) submarine armed with eight underwater-launched missiles having a range of about 30

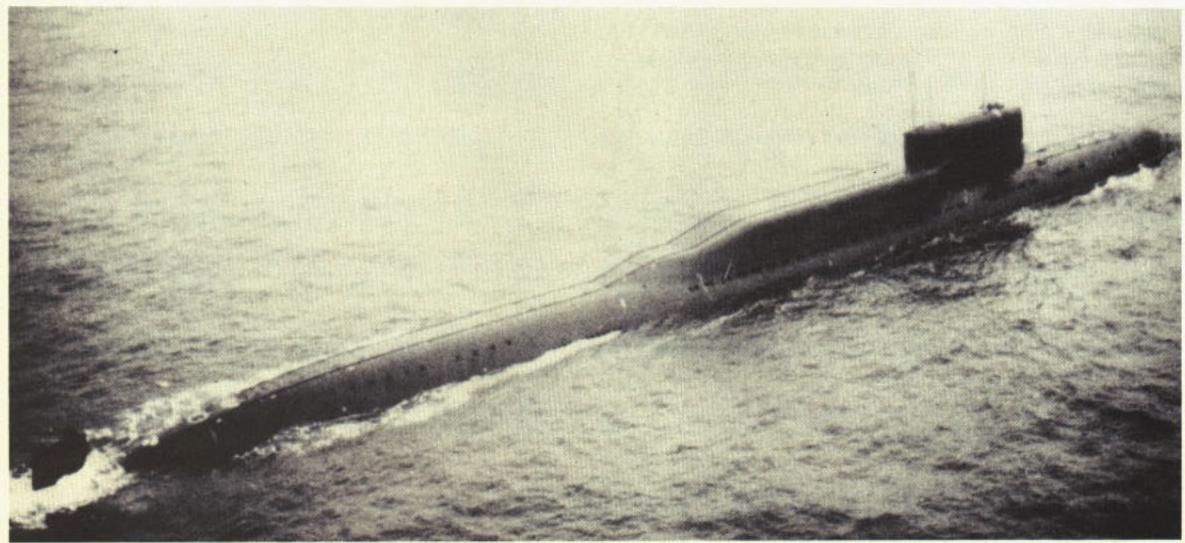
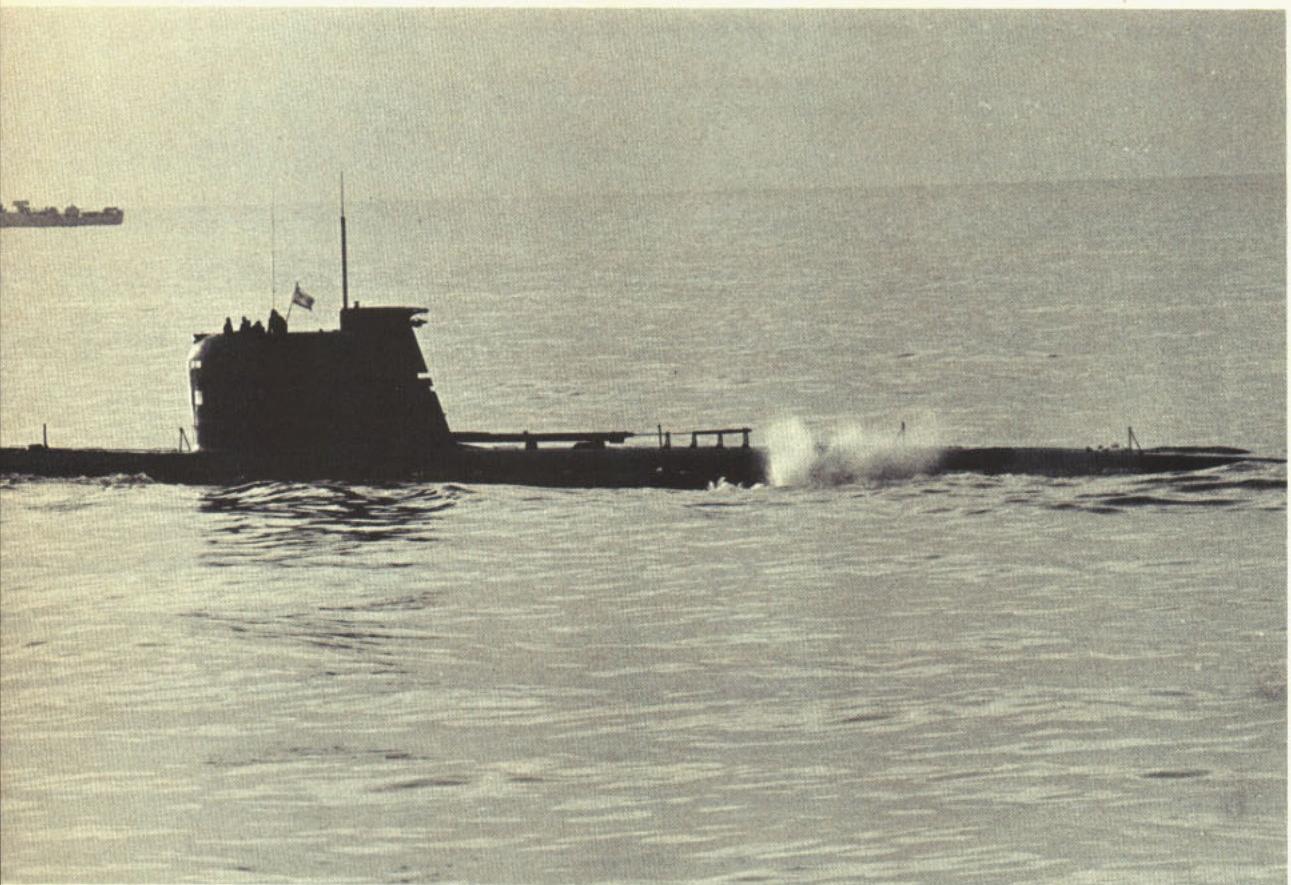


Above: A Soviet "F" class submarine underway in the Mediterranean. Right: A Soviet Delta-class, nuclear-powered submarine underway in international waters.

miles, plus torpedoes. This antiship sub first went to sea in 1968 and about 10 of them have been built.

- *Delta class.* A 450-foot-long, nuclear-powered ballistic missile (SSBN) submarine armed with 12 ballistic missiles with a range of 4200 nautical miles, currently the longest range missile in existence, plus torpedoes. Built as a follow-up to the *Yankee* class, the first *Delta* was completed during 1973 and is the largest submarine yet built by any Navy. About 10 of them are now in operation. An improved *Delta* class sub with a larger missile battery is believed to be under construction.

The Soviets now have about 44 *Yankee* and *Delta* class submarines carrying almost 700 missiles. Under current SALT agreements they are permitted a maximum of 62 modern ballistic missile submarines with 950 missiles.





OTHER CLASS SHIPS

Once Soviet leaders were committed to building a surface Navy in the mid-1950s, they went at it with a will. Whether they've achieved their goal of making it the biggest and best is hotly debated among Navy watchers, but they do agree the Soviets have made remarkable achievements. Their success didn't come overnight. They first had to decide what kinds of ships they wanted, plans then had to be drawn, shipyards and related industries had to be retooled for the work and, finally, actual construction had to be done. It wasn't until late 1962 that the first ships of the new Soviet Navy went to sea.

The first were *Kynda*-class "rocket cruisers" designed specifically to counter U. S. aircraft carriers. Their main armament is eight *Shaddock* missile tubes, and they also have a twin antiaircraft missile launcher, six torpedo tubes, antisubmarine rocket launchers and four 76mm guns. All these weapons are crammed into a 465-foot hull, smaller than many western destroyers with less armament. *Kyndas* are capable of 35-knot speeds.

By the early 1960s, after four *Kynda* cruisers were built, a slightly larger *Kresta-I* class began building. In this ship, the *Shaddock* tubes were reduced from eight to four, but a second antiaircraft missile launcher and an ASW helicopter were added. A larger *Kresta-II* soon followed. *Shaddock* was replaced by 25-mile-range, antiship missiles. The shift to these much shorter range missiles was apparently in line with a change in the Soviet Navy's mission from purely anticarrier to general use and sea control. *Kresta-II* also carries advanced antiaircraft missiles and electronics equipment. Six of these 520-foot-long ships were built since 1970.

In 1973, another new missile cruiser was launched, the 560-foot-long *Kara*-class, which was bigger still than any modern missile-equipped cruiser yet built by the Soviets. Improvements in weapons were made, and with the larger size, operating range was increased—a reflection of the Soviet global Navy strategy.

In addition to these new classes, several older *Sverdlov*-class cruisers which were built in the late 1950s have been kept on the active list. Most of them have retained their all-gun armament, but one has a twin long-range antiaircraft missile launcher in place of a 6-inch gun turret. Two of these cruisers have been altered to act as command ships, complete with satellite communication devices. These two give the Soviets the capability for improved command and control in remote areas such as the Indian Ocean and South Atlantic.

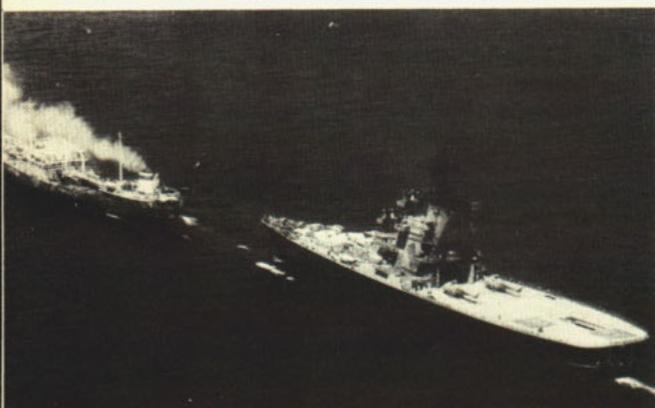
There are currently about 30 cruisers in the active Soviet fleet.

Along with cruisers, the Soviets began building some new destroyers and frigates. One new class which entered the fleet in 1970 has been called "ton for ton, the heaviest armed and most effective destroyer afloat." This 405-foot-long *Krivak*-class destroyer is, like most of the new Soviet ships, bristling with arms.





Opposite page top to bottom: A Kynda-class Soviet cruiser; Kresta-class guided missile armed destroyer leader off the coast of Hawaii; Sverdlov-class cruiser at anchor; guided missile armed destroyer of the Krivak-class; and a Soviet Kashin-class destroyer. This page: A Russian-built Egyptian OSA class missile boat underway; Nanuchka-class missile boat; a Soviet amphibious ship of the Alligator-type; Soviet antisubmarine helicopter carrier Leningrad in the Indian Ocean.



It is the world's smallest warship having both antiship and antiaircraft missiles—four tubes for the former, two twin launchers for the latter. *Krivak* also has anti-submarine weapons, eight torpedo tubes, four 76mm guns and mine rails. Her advanced electronics systems include hull-mounted and variable-depth sonars.

Since 1963, the Soviets have also built about 20 *Kashin*-class frigates. These 470-foot-long "antisubmarine ships" are armed with two large antiaircraft missile launchers, antisubmarine rocket launchers, five torpedo tubes, four 76mm multipurpose guns and minelaying gear. A few have been fitted with short-range, surface-to-surface missiles and all have a heavy allowance of electronics gear. *Kashin* frigates are most notable for being the world's first large gas-turbine-powered warships. These efficient engines can push them to speeds above 35 knots. The success of gas turbines in *Kashin* frigates prompted the Soviets to put them in *Kara*-class cruisers, making them the world's largest gas-turbine-powered ships.

Although they have some new classes, the majority of the Soviet destroyer fleet is made up of older ships from the 1950s and 1960s. Many, however, are now armed with antiship and antiaircraft missiles, along with their conventional guns. During the past few years a modernization program for these ships has been underway and more advanced weapons are being added.

There are now about 80 frigates and destroyers in the Soviet fleet.

The *Mirka* and *Petya* classes of escort ships first appeared in 1963. They displace over 1000 tons. Over 100 of these and older escort ships are now in operation along the Russian coast and in the open seas.

The Soviets also have a vast array of small combat craft, more, in fact, than the rest of the world's navies combined.

Perhaps the best known of the Soviets' small craft is the 130-foot-long *Osa*-class missile boat. Each carries four missile launchers for the 25-mile *Styx* missile. They also have two rapid-fire twin 30mm guns. Their top speed is over 32 knots.

The small size and limited capabilities of the *Osa* boats led to the introduction of the larger *Nanuchka*-class missile ship in 1970. The 200-foot-long ship has an antiaircraft missile launcher forward and a twin 57mm gun mount aft. Her main battery is six 150-mile-range antiship missile tubes. *Nanuchka* is one of the heaviest armed warships of this size in any Navy. About 135 guided missile patrol boats are in service.

In addition to these two classes of missile boats, the Soviets have about 450 ASW, torpedo and patrol craft, and about 270 minesweepers in service.

Amphibious forces and ships have received added emphasis by the Soviets in recent years. There are currently about 10,000 naval infantry, as their Marines are called, whose job includes not only amphibious

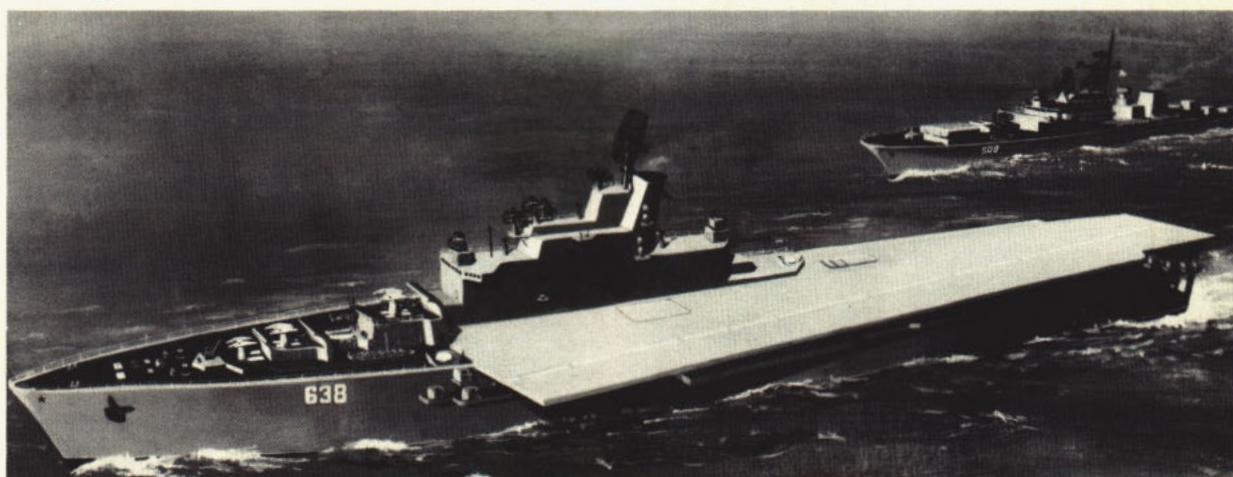
landings, but also "prolonged river crossings" and naval base defense.

To transport naval infantry, there are about twelve 375-foot-long *Alligator*-class tank landing ships (LSTs), more than sixty 245-foot-long *Polnocny*-class medium landing ships (LSMs) and about 25 other miscellaneous landing ships of 200 feet or more in length. The larger ships are armed with rocket launchers and antiaircraft guns. Soviet amphibious capabilities are expected to increase in the coming years.

In 1967, the Soviets completed their first aviation ship, *Moskva*, a radically designed half-cruiser, half-helicopter carrier. The second of these 625-foot-long antisubmarine cruisers, *Leningrad*, was underway the following year. Each carries about 20 ASW helicopters,

and the entire aft half of the ship is a flight deck. In the forward cruiser half, they are armed with two twin antiaircraft missile launchers, antisubmarine rocket launchers, 10 torpedo tubes and four 57mm antiaircraft guns. They also have advanced radar, hull-mounted and variable-depth sonar and electronic countermeasure equipment. In addition to their ASW role, these ships can also be used as task force and fleet flagships.

A second generation aircraft carrier is now being completed by the Soviets. Also a variation, the 900-foot-long *Kiev* is a cruiser forward, but has an island superstructure to starboard and an angled flight deck aft. The 600-foot-long flight deck does not have catapults or arresting gear, and the ship will probably carry about 20 helicopters and about a dozen V/STOL aircraft.



Above: Artist's concept of the new Soviet aircraft carrier now under construction and expected to be more than 900 feet long and displace some 45,000 tons. Also shown is a Krivak-class guided missile destroyer. Below: The Soviet intelligence trawler *Gidrofon* underway in the Gulf of Tonkin with the attack aircraft carrier USS *Coral Sea* (CVA 43) and her escort ships in the background.



A second ship of this class is now under construction.

Closely allied with the buildup of warships has been the increase of surveillance and intelligence ships.

Probably the most famous of their intelligence collectors are the unarmed trawler-type AGIs. They are manned by Navy crews and fly the Russian naval ensign. Some 50 AGIs are presently in service and keep a close watch on important U. S. Navy bases such as Rota, Spain; Holy Loch, Scotland; Apra Harbor, Guam; and Charleston, S. C. They have watched hundreds of U. S. military and civilian missile launches, and one was on hand when the first *Polaris* submarine, *USS George Washington*, tested her missile launching system in April 1960; another was nearby when *USS James Madison* first fired the multiwarhead *Poseidon* missile in August 1970.

AGIs regularly shadow and monitor Allied fleets in the Mediterranean and South Pacific, and often sail into the center of operating formations. Their boldness, aggressiveness and efficiency are legendary among U. S. and Allied sailors. At the conclusion of one exercise, for example, a British admiral signaled, with tongue-in-cheek, from his carrier to ask a trailing AGI if she needed to be refueled. The trawler replied, "Not if you maintain your original schedule." The original schedule was classified.

Besides these AGIs which openly collect intelligence, no one knows for sure how many of the Soviets' large research and fishing fleet are also engaged in that work.

SOVIET NAVAL AIRCRAFT



Soviet naval aviation has about 1200 planes, most of which are based ashore, except for helicopters and V/STOLs. Aircraft are organized into squadrons whose commanders report to each of the four combat fleet commanders. Soviet naval aviation has four basic missions:

- **Reconnaissance.** This mission is achieved with about 50 large, four-engine, turbo-prop *Bear-D* planes, about 50 twin-jet *Badger* aircraft (roughly equivalent to U.S. B-47s) and a few supersonic *Blinder* jets. Besides long-range reconnaissance and ocean surveillance, some of these planes are equipped to provide mid-course guidance for antiship missiles launched from surface ships, submarines and other aircraft.

- **Antiship strike.** Some 290 *Badgers* are assigned this task. These planes are fitted with antiship missiles whose ranges vary from 55 to over 300 miles. A new variable sweep-wing supersonic jet is now being put into service for this mission, and is expected eventually to replace the *Badger*. In addition, some bombers of Soviet Long-Range Aviation (counterpart of the U.S. Strategic Air Command) are fitted to attack ships. All these strike aircraft have in-flight refueling capability.

- **Antisubmarine.** A large force of some 400 fixed-wing aircraft and helicopters are assigned this mission, including about 50 *May-class* turbo-prop planes (similar to our P-3 *Orion*) and about 100 *Mail-class* twin-engine flying boats. Antisub missions are flown mostly from shore bases and concentrate on coastal defense; how-

ever, helicopters from the *Moskva-class* cruisers and the *Kiev* carriers will certainly get into this work. Soviet ASW planes carry a variety of detection equipment and antisubmarine bombs and torpedoes.

- **Support Aircraft.** About 350 tanker, transport and utility planes are assigned to the Soviet Navy. About 50 of this number are assigned to training missions. This number may seem small until you consider that the Soviet Air Force handles all basic and advanced flight training and most of the airborne logistic support for the Navy.

The construction of aircraft carriers and the promotion of the naval air commander to Marshal of Aviation, the equivalent of fleet admiral, indicate that more importance is being placed on naval aviation.

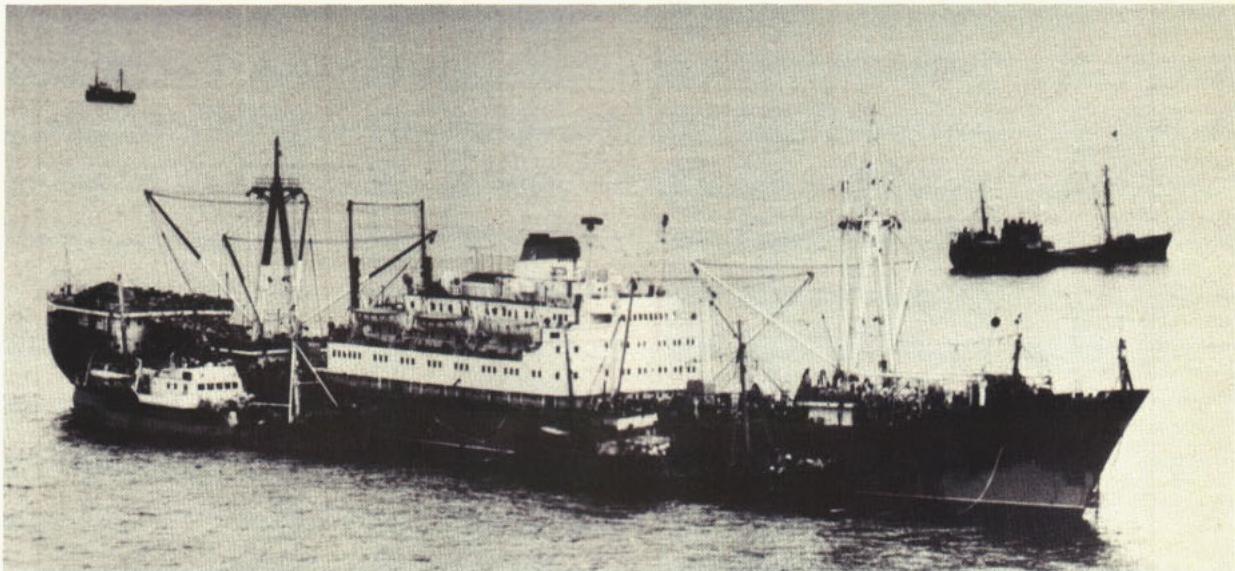


Right: A Soviet TU-95 Bear-D bomber. Below: Two U.S. Navy F-4 Phantom II fighter aircraft and a Soviet TU-16 Badger bomber in flight in the vicinity of the attack aircraft carrier USS Kitty Hawk (CVA 63).





OTHER SOVIET FLEET



When the Soviets set out to build up their Navy, they didn't forget the other aspects of seapower. The growth of their merchant marine, fishing industry, ocean research activities and shipbuilding has been just as great as that of their Navy.

Soviet merchant ships, while belonging to one of the world's largest merchant fleets, are generally smaller than those of Western nations, and this allows them to trade in small, under-developed ports not served by larger merchant ships. Soviet yards are beginning to produce larger ships, however, and are also developing containerized cargo systems.

The importance of the Soviet merchant marine centers around two missions in addition to trade. First, as a political asset in carrying out trade with and bringing supplies to third world nations. Similarly, it supplies its allies in times of crisis or war, as it did during the Vietnam War when it carried material from Black Sea ports to Hanoi, more than 14,000 nautical miles away. Second, in providing logistic support of the Navy. Soviet merchant ships regularly refuel and resupply Navy ships at sea. Another less obvious task of the Soviet merchant marine is intelligence gathering in foreign ports. It is believed that many officers and crewmen of large Soviet merchant ships are Naval Reservists.

Today, the Soviet merchant marine ranks fifth in the world in the number of ships, and about ninth in cargo-carrying capacity. In addition to cargo ships, they also operate about 50 passenger liners, many of which are on regularly scheduled runs. Soviet leaders have announced that they will have the world's largest and most modern merchant marine fleet, and they seem to be well on their way towards that goal.

In fishing, they rank third with an annual catch exceeding seven million tons, and their fishing fleet of

more than 4000 ocean-going vessels is already the largest of any nation. These fleets sometimes have as many as 1000 ships working together at one time. They include trawlers, factory ships, specialized repair ships, tankers, water vessels and tugs. Factory ships can clean, fillet, can the catch and transfer it ready for market to refrigerated cargo ships at sea.

Fishing ships often aid naval ships. In 1972, for example, a ballistic missile submarine with engineering problems was supported for several days by a fishing repair ship.

Soviet fishermen are among the highest paid workers in the country, and they receive many extra benefits for their arduous job. This industry is also a major source of Naval Reserve personnel.

Soviet ocean and space research ships are undisputed leaders with a fleet of more than 150 craft specifically configured for this work. These ships range in size from small coastal craft to the 366-foot-long *Michail Lomonosov* which can accommodate up to 40 scientists and has 16 laboratories on board, to the 775-foot-long *Cosmonaut Yuri Gagarin* which is fitted with elaborate atmospheric research and space flight support equipment. In the late 1950s the Soviets even converted two submarines to work in fishery and oceanographic research.

All these special ships are controlled by individual research institutes and various nonmilitary ministries, but some of them obviously have close ties with the Navy and intelligence activities. Once again, many officers and crewmen of these ships are Naval Reservists.

To build all these types and numbers of ships since WWII has called for a fantastic network of shipyards. Today the Soviet Union has 18 large shipyards each employing at least 2000 full-time workers. In all, it is

Left: A Russian "fish base ship" with smaller vessels alongside. The base ship can reportedly stay at sea for 60 days. **Right:** The Soviet oceanographic research ship Gavril Saritshev underway.



estimated that more than 265,000 people work in the industry.

Every aspect of shipbuilding in the Soviet Union is controlled by the Ministry of Shipbuilding, and all technology and every resource is shared throughout the industry. All equipment is standardized and the Ministry must approve every piece of it from a simple hand

tool to the most complex computer-controlled machine before it can be used by any yard. Naval and merchant shipbuilders freely exchange construction methods.

The whole Soviet maritime scene fits together like a giant puzzle. Shipbuilding, upkeep and design are controlled by one single ministry. Ships of each maritime organization actively support one another.

SOVIET NAVY MISSIONS

The Soviet Navy's mission has changed from coastal defenses following WWII, to deterring U. S. aircraft carriers and their nuclear attack capabilities in the mid-1950s, to a more offense-oriented one today. This includes four tasks: (1) Nuclear strike and deterrence, (2) Sea control and denial, (3) Presence, and (4) Seaborne projection. Current trends indicate that this will remain the Soviet mission in the future.

The buildup of the large attack submarine fleet following WWII was intended to deter Allied use of shipping lanes, particularly in the Atlantic, during wartime. Later antiaircraft and anti-Polaris forces expanded the sea denial mission. In the late 1960s, sea control also became important. This shift brought the buildup of modern, missile-carrying surface ships with increased capabilities. The sea control mission has also caused the Soviets to expand their operating areas from just the Baltic and North Atlantic to areas farther away from the Soviet landmass, for example, the Med.

Presence has been a natural by-product of the expansion, but it is also a conscious, well-planned mission to spread the political goals of the Communist Party through use of the Navy. In the past few years, Soviet warships have visited more ports in more nations than ever before. Naval presence increases in importance as more nations become more dependent on the sea

for their resources, trade, political interests and military security.

The final mission, projection, is the use of the military to project a nation's power into remote sea and land areas. Traditionally, the Soviet Union has relied on its Army for projection into land areas adjacent to the USSR, and the merchant marine for projection overseas—Cuba in 1962, for example. The Soviet Navy has now assumed an overseas projection role. Expanded operations in all oceans, the buildup of naval infantry, ocean-going amphibious ships, the Kiev-class carrier and a large, technologically advanced fleet indicate this.

All aspects of this mission are closely related. Each calls for a large, modern, well-balanced fleet. Proof that the Soviets have this and can now carry out their mission was dramatically demonstrated by the recent worldwide "Okean" exercises, the largest peacetime naval exercise in history. Soviet Navy and merchant ships simultaneously conducted maneuvers in the Atlantic, Mediterranean, Pacific and Indian Oceans. These included antisubmarine, antiaircraft carrier and amphibious landing operations. Land-based naval aircraft, the Soviet Air Defense Force and Long-Range Air Force also participated with simulated attacks against enemy ships. The whole exercise was apparently coordinated from Soviet Naval Headquarters in Moscow.



SOVIET SAILORS



As with every Navy, the most important asset the Soviets have is their sailors. Currently, about 475,000 officers and enlisted men are on active duty. The Soviet Union has compulsory military service and men are drafted into the Navy as well as the other services. Women are not drafted, but probably fill clerical and support positions; they are not considered a part of the armed forces.

The young Soviet's military career begins at about age 15, during his last two years of compulsory education in public school when he gets training in military regulations, topography, gunnery, antitank grenade-throwing and marching drill.

Young Soviets also receive military training through the Komsomol (Young Communist League) or the Volunteer Society for Cooperation with the Army, Aviation and Fleet (the DOSAAF). For those entering the Navy, this includes training in seamanship, communications and naval discipline. These organizations have close ties with the military, and nearby bases send active duty sailors to give lectures and conduct semi-technical classes. Sports, including small arms competition, and political lessons are also included.

By the time a young man begins his three-year obligated service he has been thoroughly prepared to fit into the system. First assignments are ashore for further training with advanced equipment and shipboard simulators. Once at sea, he continues his professional train-

ing and liberal doses of political indoctrination.

During their first enlistment, Soviet enlisted men have few privileges, little leave and somewhat severe discipline when necessary. In return for his service, the Soviet sailor becomes a member of the most popular branch of the armed forces, receives great respect from the civilian community and has a chance to see many different and interesting parts of the world. Morale is high and the retention rate seems to be about the same as in the U. S. Navy.

When his initial enlistment expires, the enlisted man is offered a new military status if he ships over. Benefits increase considerably and privileges compare favorably with what he could expect in civilian life.

Few enlisted men in the Soviet Navy become officers. This is a privilege usually reserved for sons, grandsons or nephews of party officials or naval officers.

Those chosen for the officer corps often begin their naval training at age seven by entering the Nakhimov school system. Originally established to educate sons of deceased naval officers, these schools have become the naval officer prep schools. Boys there get academic, political and military training.

Upon graduation, and successful completion of the entrance exam—usually by age 17—the officer candidate enters one of 11 Soviet higher naval schools, the equivalent to the U. S. Naval Academy. They appear



Left: Soviet sailors ride a liberty boat from their Kashin-class guided missile armed destroyer. Above: A Soviet Navy officer. Right: Crew members of the Soviet Kanin-class guided missile destroyer Boyky.

to offer both undergraduate and graduate education, as well as intensive political indoctrination. Virtually all Soviet naval officers are naval school graduates. Students are trained as line officers or in a specialty such as engineering or electronics. The undergraduate course is four years long, or six for engineering officers. The few non-Nakhimov graduates who are selected for the higher naval school must attend a preliminary six to eight weeks of basic training.

Upon graduation the student is commissioned and receives orders to a ship or aviation unit. During this first tour of duty he will attend special training courses and technical schools. Later, he will be rotated for seven-year tours between sea and shore duty and will probably attend graduate and joint service schools and

the Naval Academy, the Soviet equivalent of our Naval War College. Soviet officers can earn advanced degrees up to the Ph.D. in naval sciences.

Soviet naval officers are highly intelligent and well educated. Enlisted men are disciplined and well trained. All Soviet navymen are dedicated, highly motivated and extremely proud of their service.



SOVIET NAVAL LIMITATIONS

For all its assets, the Soviet Navy is not without limitations. A sufficient number of all-weather ports is a problem, but this has been partially overcome by using icebreakers and covered building and repair ways in northern ports.

A lack of air cover for ships operating far from home is another problem. The Soviets are trying to solve it with surface-to-air missile systems, shore-based air power operating from overseas bases, and—now—sea-based aircraft operating from the new Kiev-class aircraft carriers.

Open ocean replenishment has also been something of a problem, but the large, modern merchant fleet and new underway replenishment ships are solving this.

Old problems of getting through controlled straits, such as the Danish Straits into the Baltic and the Turkish Straits from the Black Sea into the Mediterranean, have largely been overcome by ship deployments far from home and overseas bases.

Some have criticized the Soviet Navy as being a "one

shot" Navy—a strong initial strike power with relatively little left after that. This "limitation" however, is not something that just happened, it has apparently been carefully developed for the future in what the Soviets believe would be short-duration conflicts of days or even hours.

A summation of a report from Secretary of Defense James R. Schlesinger had this to say last year, "As we look ahead we see a Soviet Navy that is becoming increasingly capable of overseas deployment, whose submarines could pose a significant threat to free world shipping, and whose surface combatants, with their considerable antiship cruise missile capability, could inflict serious damage on our naval forces in a surprise attack."

Czar Peter would certainly be impressed with his other hand if he could see it today.

—JO1 Tom Jansing

A.U.S. SAILOR in the SOVIET



Grab the brass ring! This could well describe Chief Journalist William G. Clark's response when he was included in a group invitation to visit Russia this past year—the group being members of the Washington, D. C.-based Arena Stage. Clark is a full-time journalist attached to the Office of the Chief of Information; by avocation he's a part-time member of Arena Stage and, also, a part-time artist, adept with both brush and pen. He took an extended leave, gaining Navy approval to visit a restricted country. Following a briefing by the State Department, he and the actors of Arena Stage were off on a whirlwind tour (18 days were spent in travel) which included performances of two American classics in Moscow and Leningrad.

His reaction to his Russian visit is illustrated in words and pictures on these pages. Here it is—an American sailor in Soviet Russia.

"What's it like, what's Russia really like?"

Without fail, this is the most frequent question asked of me since visiting Moscow and Leningrad as a member of the Arena Stage touring company.

After long negotiations, two American classics, "Inherit the Wind" and Thornton Wilder's "Our Town," were accepted to represent the U. S. as part of a cultural exchange program between the two countries.

From repertory companies across the country, Arena Stage of Washington, D. C., was picked, and I was included for several understudy assignments in "Inherit the Wind."

In both Leningrad and Moscow, Arena played to sellout crowds who lavished sustained standing ovations upon the performances and, not infrequently, delivered flowers and gifts at curtain calls. Simultaneous translations of the productions by an interpreter detracted somewhat from the plays' luster; nevertheless, both productions must be labeled overwhelming successes.

Russia was like no other country I've ever visited. I had envisioned a country done up in austere black, white and varying hues of gray. These thoughts were

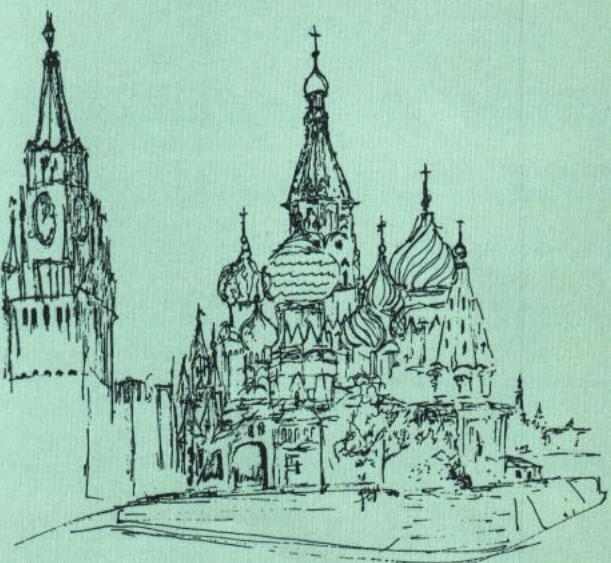
dispelled the moment our 68-member company, two tons of scenery and one live stage monkey arrived at the Sheremetyevo airport in Moscow. ("Inherit the Wind" concerns the 1925 Scopes "Monkey Trial.") New sights and sounds constantly assaulted my senses. Myths were shattered as I was greeted by freeways, traffic lights, neon signs, television towers and numerous modern buildings.

And Leningrad, "Venice of the North," is like no other city I've seen, unique in character.

Inconsistency is the noun one uses to label the vast difference presented by Moscow's onion-domed, Byzantine St. Basil's in Red Square, only two blocks from the pinnacle of 20th century Russian architecture, the modern, 2000-room glass and steel hotel "Rossiya" (Russia).

Rossiya's rooms were small, yet modern—and overcrowded. I was one of the more fortunate who drew a room with an excellent view of the southern part of the city from across the "Moskva" (Moscow) river. Standing on the tiny balcony, I saw the Kremlin, visible to the west, and to the east was one of five of the tallest skyscrapers in Moscow, an apartment building built in Lenin's time.

Noteworthy in Rossiya was the multitude of "desk clerks." Every floor had several at various points and their primary function was that of any such clerk—pick-up point and repository for room keys, arranging for laundry service and the like. Their second function



seemed to be maintaining social decorum and ensuring that the local citizenry stayed out of the hotel.

The Russian people I met on the tour were courteous, friendly, even concerned, not unlike many of our own people. Their desires and ambitions appeared little different from anyone else's—the right to live comfortably, do meaningful work, and provide for home and family. When one considers that once a person is assigned a job or profession in Russia his right to change does not belong to him, whether it be waiter or warden, then the challenge presented by such goals and desires can be more easily understood. Tovstonogov, director of the Gorki Theater and one of the USSR's great artists, said, "Human nature is like the ocean, unchanging, today's calm, tomorrow's tempest—but it's all the same ocean. Man is as he is, as he was, as he always will be."

Our time in Moscow and Leningrad was spent rehearsing, performing and trying to see everything. One of the Arena company reflected our mood when he

wearily swung into a chair at the dining room table one evening, "When I die, I plan to spend the first 1000 years sitting down."

Most of the company was involved in both productions. I was one of the lucky ones who performed in only the one show, allowing me to take advantage of most of the tours and events arranged for us by the Ministry of Culture. During our two-week tour, I managed to attend the opera, "Carmen," at the Bolshoi theater; the play, "Bolsheviks;" the Moscow and Leningrad circuses; the Leningrad Symphony; and tours of the Kremlin, Lenin's tomb, the Hermitage and Catherine's summer place. It became apparent to me that the Soviets had made a concentrated effort to arrange a successful cultural exposé of the country.

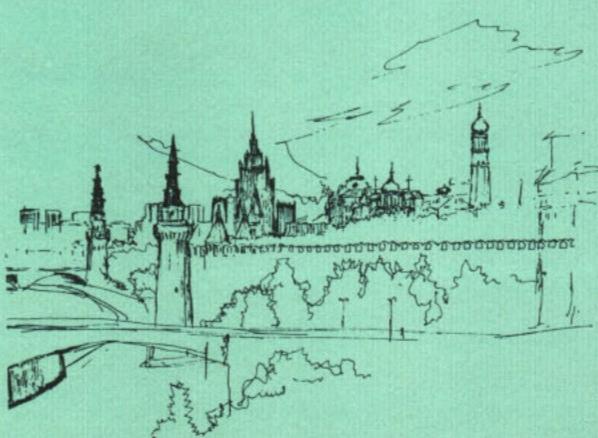
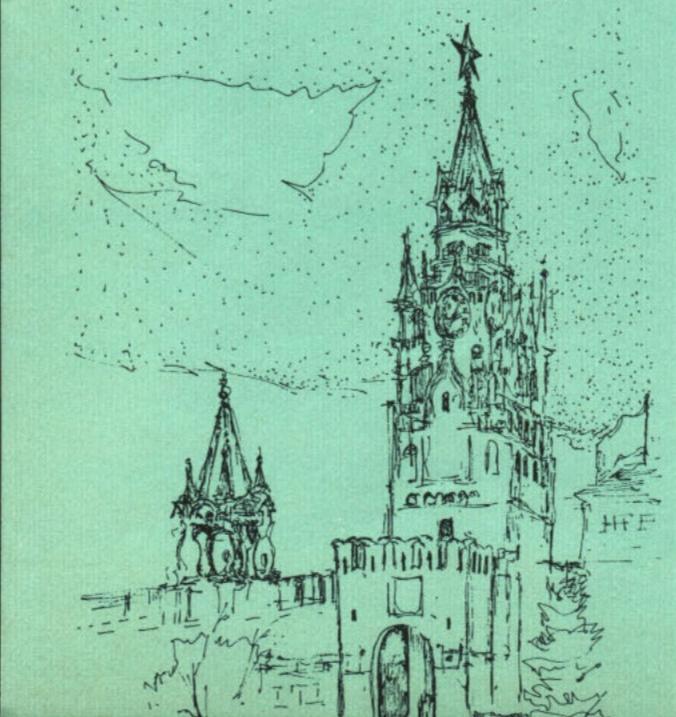
In the free moments I could grab in any fashion, I ventured into the streets, sketchbook in hand.

With wide variations in all categories, it was no surprise to discover that Russian food is a kaleidoscope of eating habits of many nationalities. Russian meals provided at the hotels were tasty and nourishing, with the exception that the servings were slightly smaller than are received at home.

In Moscow one night, five of us ventured to a large restaurant to sample local fare—the main course was chicken, served with chopped nuts and blueberries. Total cost for appetizers, five meals, two bottles of wine and a bottle of vodka was \$34 (U. S.). Fortunately, tipping is one of the few western customs that has yet to arrive in the Soviet Union.

One afternoon I decided to brave the congested grocery store and purchase a can of coffee, just to experience it from a native's point of view. I managed to station myself at the front of the line at the store's door which was just opening after the 1-3 p.m. break. The door opened, I raced in, and sang out, "Kofe." The clerk signaled, "What kind?" I pointed to the red-labeled container. The clerk wrote out a ticket that I

Opposite page top: Awaiting departure from Dulles International. Bottom: "Song of Stone," St. Basil's, Moscow. Left above: Ivan the Terrible's Bell Tower behind the Kremlin Wall. Left below: Clock Tower. Below: Southeast corner of the Kremlin. Sketches by the author, JOC William G. Clark.



took to the cashier and paid. From the cashier, who used an abacus, I received a second ticket, this in longhand, which I took and continued battling my way through the throng of pushing and shoving shoppers. I finally reached the counter and picked up my "kofe." It is inconceivable to imagine a mother with a small child or two undertaking the family marketing under these awesome conditions. Then there is the fact that fish must be obtained from the fish market, meat at the butcher, fruit at the fruit store, and so on.

Although my pound of coffee was considered a bargain at 60 cents (U. S.), Russia is not a shopper's paradise. Prices are high, even by our standards, and the overall quality is inferior. Since all stores are government-owned and all prices are state controlled, there are no bargains. The redeeming feature is that while one cannot locate a sale, neither are there any dangers of tourist traps.

Crowds were everywhere. Crowded conditions are not just confined to "necessity" stores—you found them in the streets, stores and cinema alike. With all the people on the streets, I frequently found myself wondering, "Who is doing the work?"

In Leningrad, the Russians tell a joke on themselves regarding their crowded main street, Nevsky Prospect. "What do the people do when they aren't walking up Nevsky Prospect?" The reply: "They are walking down Nevsky Prospect!"

On one venture in Moscow I decided to attend a Russian movie. Upon arrival at the lobby, I thought I would only have about 15 minutes or so to kill after getting my ticket. After 20 minutes of limited progress in the mass of humanity, a bell rang and a large portion of the crowd dispersed. With numerous jabs at watches pointed to the schedule over the ticket window, the Russians finally conveyed the message that the next feature had just been sold out and I could obtain a ticket for the later performance. I decided to give it up, however.

By far the one item that made the greatest impression upon me was the efficient commuter systems from all types of mass transit—buses and trolleys, both electric and diesel—to the subway. The subway exceeded my wildest imagination. For only three kopecks, about five cents, I was allowed to travel to any point within the city and I was greeted with an immaculate interior of white and brown marble, occasional plaques and paintings, and the icing, the presence of chandeliers.

The lack of violent crime was evidenced by the large numbers of people found walking the streets of the cities at all hours of the night. When one considers the severe consequences that await the convicted purse snatcher or mugger, the reason is obvious.

Try this on for size the next time you decide to move to a new house or apartment—in Russia, everyone is allocated a specific amount of living space and living quarters are assigned accordingly. Granted, everyone is guaranteed a place to live and emergency situations can be taken care of within a few days, but under ordinary conditions, it takes about two years to get an

apartment. One cannot expect to move to larger quarters simply because he can afford it. That's impossible. An engineer, who spoke English, and I met between matinee and evening performances one day, and he and I went walking and talking to kill the time. He disclosed that he and his wife worked and together they earned the equivalent of about \$400 U. S. per month. They didn't pay taxes, medical and dental care is free, and apartments are inexpensive at only about



Top: Guests in Rossiya Hotel, Moscow. Right: Behind the stage, Pushkin theater, Leningrad. Opposite page: CDR William Manthorpe, Jr., talks with a Soviet sailor during a recent visit to Leningrad by the guided missile cruiser USS Leahy (CG 16).

\$8-10 a month. Still, even with \$400 a month, there wasn't enough to take care of all the necessities and provide for any luxuries.

Pravda and Tass provide the news, such as there is, but for most citizens, the Voice of America and Radio Free Europe tell what is going on in the world. Not once did I receive a negative reply when I asked if they listened to either broadcast.

Another insight came in a more subtle way. Russians love buttons! Any and all types of lapel and cap pins are sold at vending stands for about 10 to 25 cents. They are very political in nature, but here and there I noticed, on the "under 30" group, comic buttons that were very subtle "establishment" put-downs.

Probably the most encouraging note of the trip rang from the welcoming speech at the Sovremennik ("Con-

temporary") theater before a party given in honor of the Arena Stage group.

The speaker said, in effect, that our governments may be concerned with such matters as grain and petroleum, but actors had a responsibility as artists in "showing" governments the way. Later the entire group of some 150 Russian and American actors joined hands in a large circle and sang "We Shall Overcome" and "Hava Nagela." Lots of schmaltz but it was encouraging schmaltz.

I couldn't help but remember, then, the line from the title source of one of our plays: "For he that troubleth his own house shall inherit the wind," (Proverbs 11:29).

—JOC William G. Clark.

SECOND TIME AROUND

It is often said that life's experiences take on special meaning the second time around. For Commander William H. J. Manthorpe, Jr., his visit to Leningrad in May was no exception.

"I spent three years in the Soviet Union (1971-74) as Assistant Naval Attaché in Moscow. During that time I made more than 50 trips to Leningrad," said CDR Manthorpe. "There are few cities I know better. Returning was like seeing an old friend."

CDR Manthorpe was participating in the five-day visit by two U. S. Navy warships to Leningrad in commemoration of the end of World War II in Europe.

Because of his previous experience in the Soviet Union and his ability to speak the language, Manthorpe, who is assigned to the Office of the Secretary of Defense, accompanied USS *Leahy* (CG 16) to serve as interpreter and aid in coordinating activities during the visit.

He conducted a series of orientation lectures for the ship's crew on the Soviet Union and the city of Leningrad.

Of his three-year assignment in Moscow, CDR Manthorpe said, "I found the duty challenging and interesting, personally as well as professionally. I was the representative of the U. S. Navy to the Soviet Union."

He stated that for most of the three years the opportunity to bring about the exchange of ideas between the American and Soviet navies was quite limited.

"However," he said, "I was able to participate in arranging exchanges between the American and Soviet Incidents-at-Sea delegations."

During his tour, his wife, Judith, and their younger daughter, Jennifer, lived in Moscow's diplomatic community. Jennifer attended the Anglo-American School and Kimberly, their elder daughter, joined the family in Moscow for the final year after completing school in England.

While serving as attaché, the commander and his family had ample opportunity to visit various parts of

the Soviet Union, from the Polish border to the Pacific coast, and from the Caspian Sea to the Barents Sea. They found Russia to be a country striving to equal the military, industrial and agricultural strength of the United States.

The commander said his recent Leningrad visit gave him the opportunity to meet, talk and exchange ideas with his counterparts in the Soviet Navy in the Leningrad area.

"It's amazing," he said, "but just a year ago such an exchange was virtually impossible."



COMOPTEVFOR

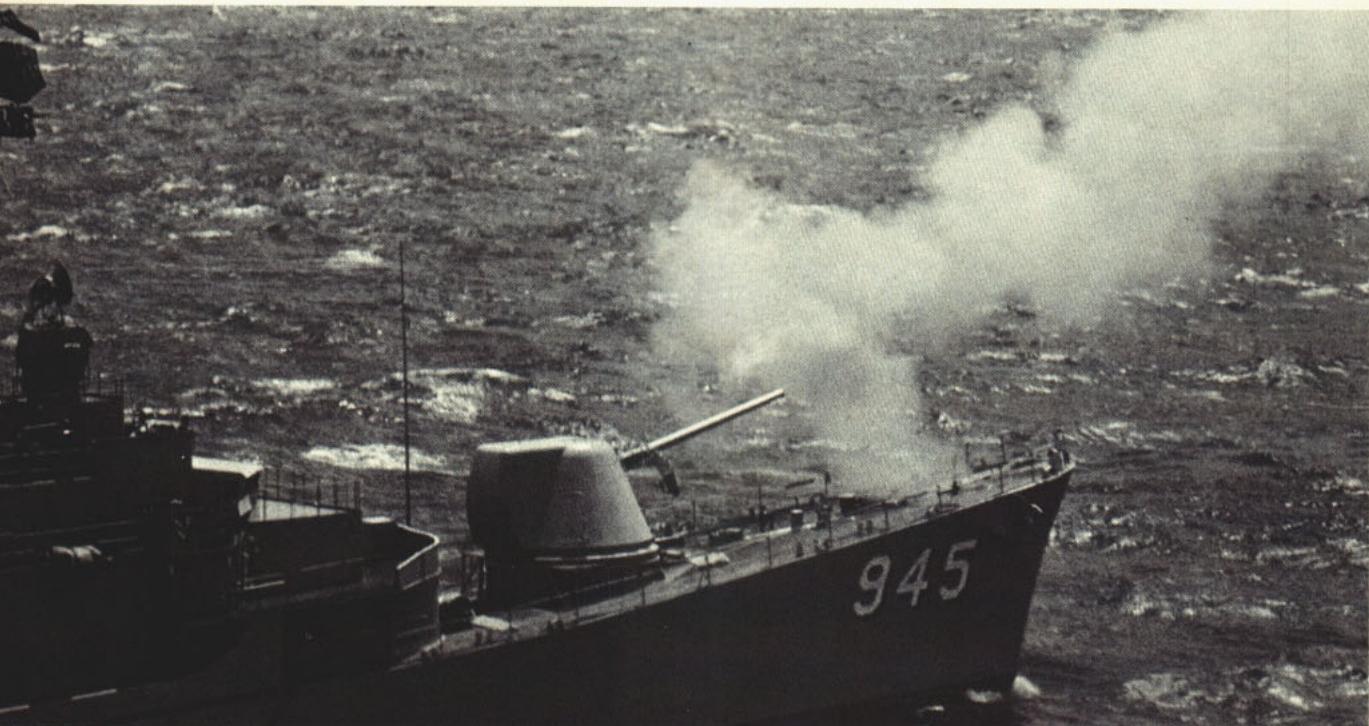
Debugging Systems Before Obligating Funds

One might readily associate "black boxes" with something magical, but to men and women of COMOPTEVFOR in Norfolk, Va., these words mean something entirely different. Here they are merely terms of the trade—a unique trade, at that.

Now you're probably asking, like a lot of others, what's COMOPTEVFOR? It stands for Commander Operational Test and Evaluation Force. Headed by Rear Admiral Robert R. Monroe, this organization is the Navy's sole independent operational test and evaluation (OT&E) agency for new weapons systems, ships, aircraft and equipments, including procedures and tactics. It further assists developing agencies in accomplishment of necessary development test and evaluation (DT&E).

Comprising some 1400 personnel, OPTEVFOR is in the business of operational testing of new weapons systems, in a simulated combat environment, before production contracts are signed. Rear Admiral Monroe calls the work "a tremendous safeguard to the taxpayer. We make sure a system will work at sea, and stay on the line, before we spend a lot of money on it."

The youthful-looking, bicycle-riding OPTEVFOR commander stresses the point that his command is involved in "operational" test and evaluation. At a recent presentation for a CNO executive board, he described what he termed an overdrawn example to emphasize the difference between the two types of T&E. He used a theoretical case of *Harpoon* missile and the NATO hydrofoil.





Above: F-4 Phantom II fighter aircraft of Air Development Squadron Four (VX-4) in flight. Facing page: The Navy's major 8-inch caliber lightweight gun is test-fired for the first time from a ship, the destroyer USS Hull (DD 945).

The admiral began, "For DT&E, the developing agency would properly optimize all conditions. He would preselect a missile for firing and peak and tweak it with field engineers and contractor reps doing most of the work. The PHM, also with technical people aboard, would sortie specifically for this test, in good weather. The PHM would probably steer a steady course and speed at a predetermined range and would launch a missile at an anchored target hulk. If a member of the contractor's launch team made a personnel error, the shot would properly be labeled a 'no test.'

"Now we'll consider the 'operational' aspects of test and evaluation.

"For OT&E, by COMOPTEVFOR, the PHM and the *Harpoon* missile would be handled only by the ship's regular crew; no engineers or contractor reps would be allowed aboard. Several *Harpoon* missiles, selected at random, would be loaded in the PHM's launcher a month or two before the firing test and subjected to the normal shipboard environment of high seas, vibration, sun and spray, gun firing and perhaps even paint chipping in port.

"The *Harpoon* firing would take place at the end of a typical five-day mission profile at sea, hopefully in poor weather. The PHM would close the target at maximum speed, using zigzag courses to avoid simulated return fire. The ship would have other tasks to perform (such as gun firing, contact reporting, navigation) during the run-in. The target might be a high-speed *Septar*, equipped with remote-control chaff launchers

and expendable defensive electronic countermeasures (DECM) equipment to counter the *Harpoon*.

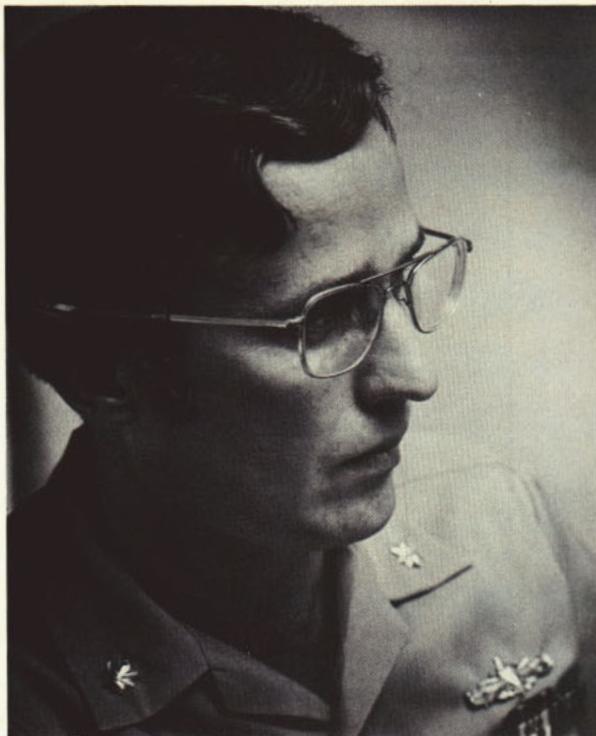
"The hydrofoil would have to detect the target, identify it, make tactical decisions on engagement, fire the missile, assess the effect of the shot and make decisions on subsequent action—all of which would be part of the evaluation. If the shot missed because of a personnel error among the crew, the firing would be evaluated a failure in some aspects, even though the *Harpoon* itself performed well.

"Although this example is somewhat overdrawn, it emphasizes that DT&E attempts to optimize all conditions and evaluates hardware only, whereas OT&T attempts to create combat conditions and evaluates the entire system, including the men in the loop and the interfaces with other systems."

According to DoD Directive 5000.3, "the T&E bible," in order to be classed as OT&E, testing must:

- Be planned by COMOPTEVFOR, rather than by the developing agency;
- Be conducted by fleet-type personnel, both for operation of the equipment and for maintenance;
- Be carried out at sea, under typical fleet conditions and against a simulated enemy who fights back;
- Have the actual testing supervised by COMOPTEVFOR, in terms of making on-the-spot decisions, and finally;
- Be reported independently to the CNO by COMOPTEVFOR.

The entire effort at COMOPTEVFOR is to save time and



LCDR J. C. Richardson and STCS J. H. Walters, members of COMOPTEVFOR staff.

money; to save time by planning, rather than by being forced into last-minute rescheduling to test critical aspects of new equipment, and to save money by fixing one model before production, rather than retrofitting hundreds once they are in the fleet. Admiral Monroe says, "What we're talking about here is *fleet readiness*. If the new equipment arriving in the fleet will do its job, and is reliable, then we have a fighting chance of digging our way out of the readiness hole. But if the new equipment has as many problems as the old, the fight will never be won. OT&E gives the Navy the only measure it has as to how the equipment will perform in the fleet and it provides this in time to decide whether to produce or fix."

At the end of April 1975, OPTEVFOR had 362 CNO-assigned projects for T&E of futuristic hardware, ranging from missiles to shipboard sewage systems. This represents a vast growth since the end of calendar year 1970 when the command had a total of 139 projects assigned. Since that time, there has been a steady increase, with 187 projects at the end of 1971, 211 at the end of 1972, 248 at the end of 1973 and 324 at the end of 1974.

All projects assigned to OPTEVFOR by CNO initially go through administrative processing and then are assigned by Operations and Plans to a warfare division. Responsible officers then plan the evaluation, develop test plans, conduct the tests at sea, and analyze test results. Following this, evaluations of test results are provided CNO by COMOPTEVFOR for a decision on operational effectiveness and operational suitability of equipment for the fleet.

This sounds relatively simple and clear-cut, but any of the 22 OPTEVFOR project officers and coordinators interviewed for this article will readily tell you it is a

time-consuming, intricate and demanding process. A major consideration is the amount of travel involved, says Lieutenant Commander G. F. Monell, assistant for advanced integrated missile systems, surface warfare division. He has logged about 125,000 air miles in two and one-half years at OPTEVFOR.

According to Lieutenant Commander J. C. Richardson, assistant for medium range missile systems, you work from a "moving desk." It necessitates your "keeping a bag packed" at all times. They and others agree, however, that the work is "challenging, rewarding and exciting."

For the most part, OPTEVFOR project officers and coordinators welcome the opportunity to view and learn firsthand about all the latest proposed pieces of equipment for the fleet. It could become a bit mind-boggling keeping up-to-date simultaneously on 30, 40 or even 50 pieces of equipment, but as resident "experts" at OPTEVFOR headquarters, this is an absolute must. Whether the "expert" is an officer or one of the enlisted men, he is required to keep "up to speed" on any project assigned to him and be prepared to make a full report on a moment's notice.

This brings up a point which sets OPTEVFOR apart from most if not all other commands in the Navy. Due to the uniqueness of its role, as well as the fact that an individual assigned a project is labeled the "expert," all project officers and coordinators are on a one-to-one basis among themselves, as well as with the admiral. Anytime a project is being discussed, the "expert" is expected to take a firm stand on the points which he deems vitally important to the subject, even if it means taking an opposing view to a senior man.

Although generally senior types themselves, enlisted

personnel assigned to OPTEVFOR readily admit that adjustment to this sort of working relationship presented certain inner conflicts in the beginning. In time, however, as one becomes thoroughly indoctrinated with OPTEVFOR's workings, this new way of doing things is accepted without hesitation. When the initial inner reluctance has worn off, enlisted men find themselves easily discussing and, on occasion, disagreeing with officers. As Chief Sonar Technician F. Miller put it, "They always listen to us here, whether our opinion is good, bad or otherwise."

OPTEVFOR is the scene of constant activity. With more than 300 projects on the line, and tasked to ensure that each one is fleet ready, there is little time for anything other than business during the working day. All assigned personnel agree on this, just as they do one other major point and that is the extremely high job satisfaction derived from work at OPTEVFOR. That was the most common remark by all interviewees at the command.

OPTEVFOR is many things, but most important, it's a little command doing a big and extremely critical job. All those hundreds and thousands of "black boxes" that command personnel deal with daily represent potentially great investments of taxpayers' dollars, so they must be scrutinized very carefully before production begins.

What's a "black box"? Very simply, it's any component box of a system, so called because it is painted black.

A history of OPTEVFOR follows.

—JO1 K. Testorff



Above: U. S. Navy Surface Effect Ship (SES 100B) speeds across the water during a test run. Below: Guided Missile Patrol Hydrofoil Pegasus (PHM 1) skims the waters of Puget Sound, Wash., at speeds in excess of 40 knots during a test.





RADM Robert R. Monroe is Commander of the Operational Test and Evaluation Force.

A Brief Historical Summary

COMOPTEVFOR traces its origin to the final months of World War II when the need arose for an effective means to combat Japanese kamikaze attacks.

On 2 Jul 1945, the Composite Task Force, U. S. Atlantic Fleet, was formed to develop tactics and evaluate equipment to counter the kamikazes. This force was commanded by Vice Admiral W. A. Lee and consisted of miscellaneous types of combatant ships with supporting aircraft and drone control groups.

When World War II ended, the Composite Task Force was consolidated with other fleet units doing development work and, in December 1947, was redesignated the Operational Development Force (OPDEVFOR). In the early years, COMOPDEVFOR flew his flag in USS *Adirondack* (AGC 15), but in the summer of 1949, the command moved ashore to headquarters at the Norfolk Naval Base.

During the ensuing years, changes were made to the mission and tasks to provide wider responsibilities in operational test and evaluation. For example, in 1952, the Tactical Development Group was formed and became part of OPDEVFOR. Changes were also made in the organizational structure, to expand test and evaluation capabilities and to form a subordinate command within the Pacific Fleet.

Accordingly, in May 1959, the command was renamed Operational Test and Evaluation Force (OPTEVFOR) to reflect more accurately its increased responsibilities. Headquarters then was moved to Camp Allen

in Norfolk, in 1960, and has remained there since.

From inception until the early 1970s, OPTEVFOR was an operational command reporting to CINCLANTFLT. Its mission was primarily concerned with fleet introduction of new weapons systems, including operational test and evaluation and development of tactics.

In the early 1970s, however, OPTEVFOR was designated the Navy's sole independent agent for operational test and evaluation. This move was in response to Congressional and Secretary of Defense initiatives aimed at improving the defense material acquisition process. The force retained its former responsibilities and added the new ones of making early, independent assessments of operational effectiveness and operational suitability during the research and development (R&D) process.

In keeping with these new responsibilities, which moved OPTEVFOR's participation *ahead* of the production decision, the Force Commander now reports directly to the Chief of Naval Operations (CNO) as Assistant Director for Operational Test and Evaluation (OP-098C). In addition to these duties, RADM Monroe also serves as Director, Test and Evaluation Division (OP-983), thus giving T&E a strong focal point within OPNAV.

OPTEVFOR is a two-ocean operational fleet command with policy direction, technical and procedural guidance and financial support coming from CNO. For operational control of fleet units, COMOPTEVFOR reports to



STC F. Miller is one of the highly qualified specialists assisting in equipment evaluation.

Summary of COMOPTEVFOR

CINCPACFLT, CINCLANTFLT and, when necessary, CINCUSNAVEUR. CINCLANTFLT provides administrative support for headquarters staff and logistics services for Atlantic Fleet operations. CINCUSNAVEUR provides logistic services for Sixth Fleet operations and CINCPACFLT provides logistic services for Pacific Fleet operations.

To permit COMOPTEVFOR to carry out his mission, he must closely follow all R&D programs of the Naval Material Command and the Office of Naval Research. CNO accordingly has authorized direct liaison between COMOPTEVFOR and the heads of developing agencies for all technical matters relating to Navy research, development test and evaluation programs.

The staff of COMOPTEVFOR is organized along flexible lines that give primary consideration to types of warfare and project administration. Evaluation of equipment and systems is carried out by personnel with operational experience in the type of equipment or warfare over which their divisions have cognizance.

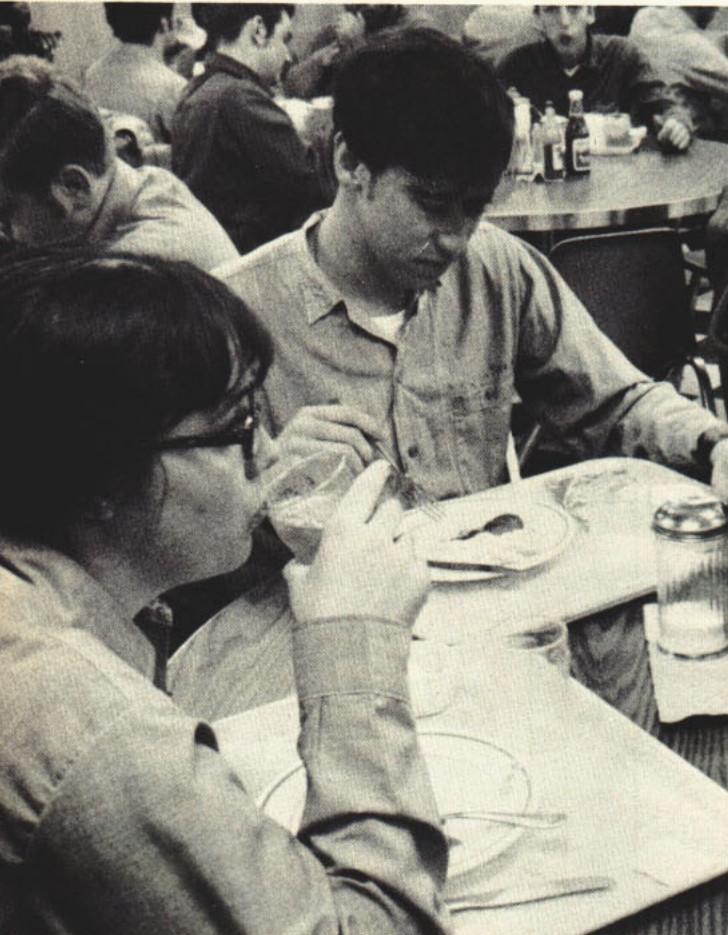
On 1 Jul 1974, a major new division was created to coordinate operational evaluation of new classes of ships. Also in 1974, in response to increased emphasis, the Special Operations section was given divisional rank and was retitled the Ocean Surveillance Division. The following is an outline of headquarters organization at the close of 1974: comptroller, administrative division, operations and plans division, ship evaluation division, underseas warfare division, air warfare division, com-

mand and control systems division, surface warfare division and ocean surveillance division.

The Deputy COMOPTEVFOR, Pacific, located in San Diego, maintains liaison with CINCPACFLT, Pacific Fleet type, functional and support commanders and, when directed, heads of Pacific shore activities engaged in development work, including contractors. He administers, coordinates and supervises projects being prosecuted in the Pacific Fleet areas as directed by COMOPTEVFOR and prepares proposed project plans and reports as required. When requested by CINCPACFLT, he renders assistance for Pacific Fleet assist projects.

In addition to the deputy commander, OPTEVFOR maintains three aircraft squadrons and two detachments which assist in OT&E programs. These include Air Test and Evaluation Squadron One (VX-1), Naval Air Station, Patuxent River, Md.; Air Test and Evaluation Squadron Four (VX-4), Naval Air Station, Pt. Mugu, Calif.; and Air Test and Evaluation Squadron Five (VX-5), Naval Weapons Center, China Lake, Calif.; and New London Test and Evaluation Detachment (NLONTEVDET), Fort Trumbull, New London, Conn., and Sunnyvale Test and Evaluation Detachment (SUNTEVDET), Moffett Field, Calif. The three air squadrons are under COMOPTEVFOR's operational control only; administrative control remains with the appropriate type commander.

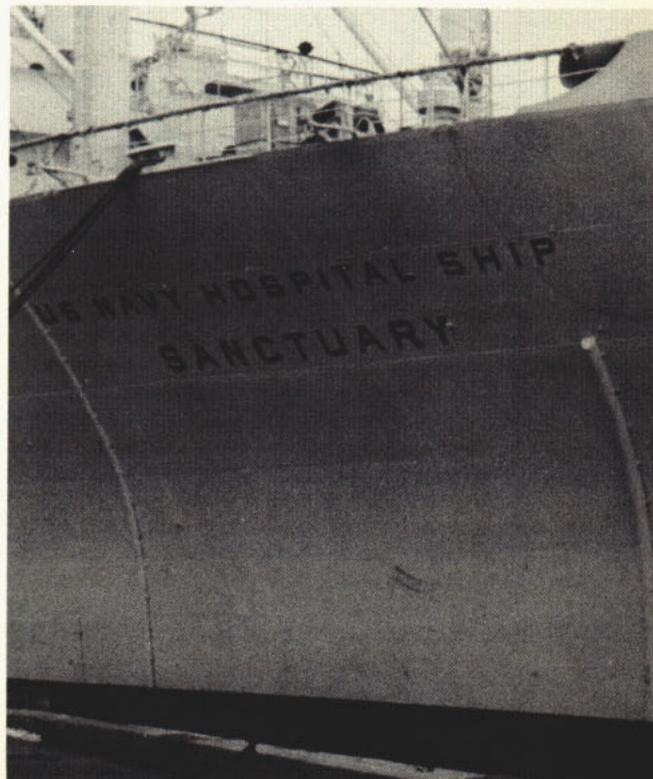
The Sanctuary Experience



Above: Sanctuary crewmembers at chow. Right: Crewmember at bow of ship. Facing page: Women on the job aboard Sanctuary. Photos by LCDR T. Marquez, PHC Ralph Wasmer and PHC Ronald J. Oliver.

Federal law today prohibits women from serving on board vessels of the Navy other than hospital ships and transports. Historically, women officers of the Nurse Corps and Medical Service Corps have been assigned to the medical departments of hospital ships for many years. In fact, Navy nurses first served aboard the transport ships *uss Mayflower* and *Dolphin* in 1913, and first served aboard the hospital ship *uss Relief* in August 1920.

In August of 1972 a program began with the purpose of studying the pros and cons of women at sea in other than medical billets. As a result, a limited number of women officers and enlisted members were assigned to



ship's company of *uss Sanctuary* (AH 17) in a pilot program to gain experience regarding the employment of women at sea in a nonmedical environment.

During the pilot program, approximately 23 women officers (including five line and Supply Corps officers and 18 nurses) and 97 enlisted women were assigned to *uss Sanctuary*, with as many as 69 of these Navy women being on board at the same time (total ship's company was about 400).

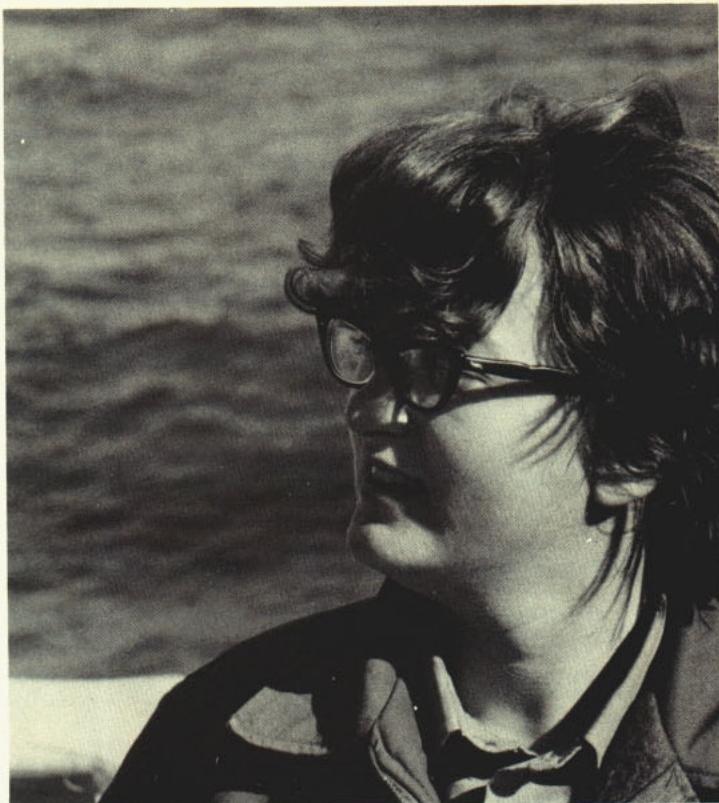
Women worked in all departments except engineering, and performed such tasks as deck seamanship, navigation, and assignment to general quarters stations and repair parties.

They were also assigned watches and other military duties comparable to their ratings and on an equal basis and rotation with men.

Some of the findings:

- The women aboard *uss Sanctuary* performed their assigned duties with expertise equivalent to their male counterparts.
- Both men and women among the crew generally had the same kind of comments and/or complaints concerning shipboard living conditions, with women crewmembers expressing a greater need for privacy and habitability than did the men.

With the recent decommissioning of *uss Sanctuary*, the Navy pilot program came to an end and its capability to assign women to sea no longer exists. The lessons learned from this pilot program, however, have been valuable. Namely, the commanding officer of *Sanctuary* gave a summary of his observations and recommendations as they related to the experiment. It is emphasized that these generalizations and recommendations apply only to *uss Sanctuary* (AH 17), a highly special-



Sanctuary Experience

ized ship with features and functions unlike those of other naval vessels. (Indeed, it was the only ship in the Navy with accommodations permitting such an experiment to be conducted without extensive alterations.) These points were made in the summary report:

- There was no special qualitative screening of men and women personnel before making assignments; however, only single women without dependents were assigned. Members of one sex were not allowed in the berthing or sanitation areas of the others.

- The women performed their assigned duties in an excellent manner, indicating that women performed their assignments with equal ease, expertise, and dedication as their male counterparts in the same assignments. Difficult jobs were accomplished through mutual assistance of men and/or women personnel. For example, a weaker person (man or woman) was aided by a stronger person to accomplish a specific task. Crew-members reported no problem with the strength of women personnel.

- The male members aboard ship (about 83 per cent of the crew) seemed to be either pleased with or indifferent to having women aboard ship. Most of the ship's crew appeared to have mature attitudes about the relationships between individuals. Antagonism was minimal. The morale of the ship's crew was high. Officers and enlisted men, including personnel both experienced and inexperienced with sea duty, generally believed that having women in the Fleet had some beneficial effects.

- The conclusion of the CO's observations was that women aboard USS *Sanctuary* performed their duties well. They caused no major shipboard problems, since no major changes in habitability for women aboard ship were required. He deemed the pilot program, within its set limits, a success.

If the legal restrictions—that is, Title 10, U. S. Code, Section 6015—which prohibit the assignment of

Below from left to right: LT Peggy Harlow, LT Mary Anne Gardner and LTJG Bonnie Latsch. **Above from left to right:** Before assignment to *Sanctuary*, women went through damage control school at Treasure Island. Preparations for going ashore bring on a bit of teasing from shipmates. Linehandlers on deck of *Sanctuary*.



women to ships other than hospital or transports, were to be removed, what would the Navy be expected to do?

It is probable that the Navy would first assign women to serve on large auxiliaries such as tenders (AD), fast combat support ships (AOE), replenishment oilers (AOR), ammunition ships (AE), combat stores ships (AFS), or amphibious ships (LHAs and LPHs), before attempting their assignment to other combatants. (The problems of designing a destroyer, for example, to accommodate a male-female crew staggers the imagination!)





Based upon the possibility of such a contingency at some future time, the pilot program resulted in a number of recommendations.

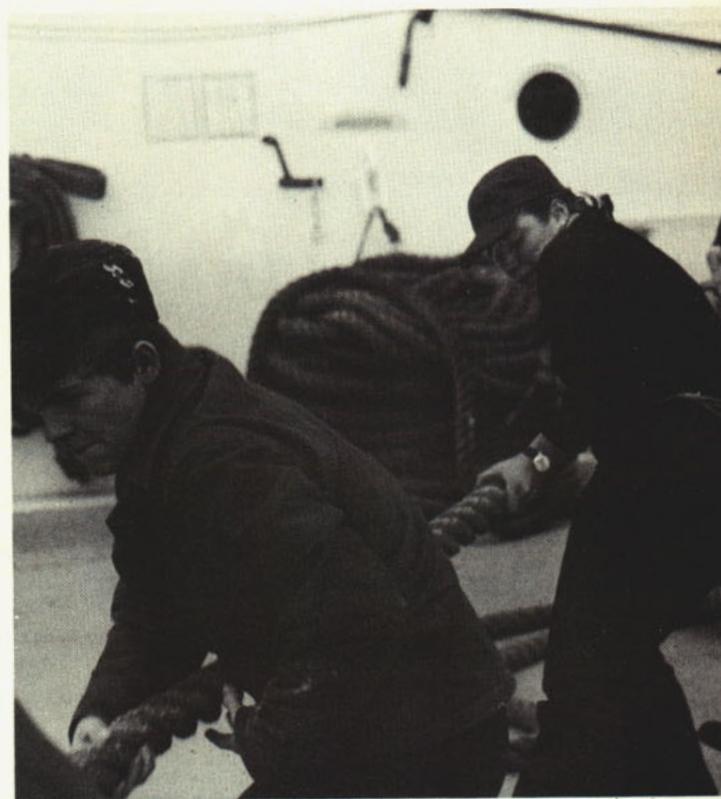
• Initially, a cadre of experienced (seagoing) senior rated enlisted women would be available to provide leadership example and standards for the maintenance of good order and discipline.

• The recommendations suggested modifications of women's uniforms for shipboard duty, and a study of the feasibility of redesigning the women's berthing area to increase their feeling of privacy.

• While continuing to provide sexually segregated, but not preferential, berthing, the pilot program study gave emphasis to the necessity of "equal consideration and equal treatment concepts for all personnel."

Sanctuary is no longer in commission and her crew—male and female—have been dispersed. But the Navy stands to profit from the pilot program, not only through its findings but in the experience of her crew. Special attention was given to ensuring that the unique seagoing experience of the women would not be lost. Their followup assignments are such that they can continue to add to their long-range career development. Four officers of the Sanctuary crew—three women and one man—have been assigned to the Naval Education and Training Center in Newport, where they were interviewed by Ensign Char Jensen, USN. Here is her report.

• LT Bob Johns is a former navigation and operations officer aboard *Sanctuary*. He was relieved in that billet by LT Susan Canfield, the first woman graduate of NETC's Surface Warfare Officer School.



"We had to learn to ask 'who's there?' before opening the door of berthing quarters at certain times," LT Johns reminisced.

Adapting well to their new assignments and gaining their sea legs rapidly, the ladies, according to LT Johns, "did it all" with dispatch.

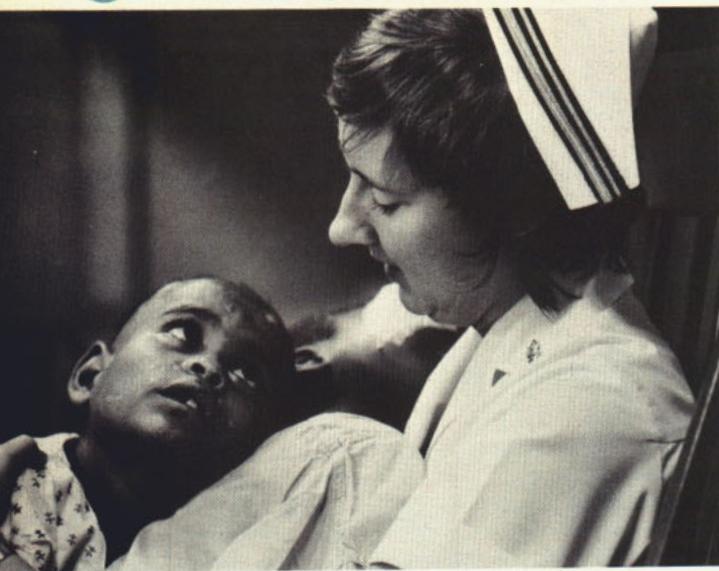
While training was simplified owing to less sophisticated equipment than is found on a destroyer, he adamantly maintained that the women had no trouble completing shipboard tasks. "Their only lack is training," he says, "which isn't their fault."

He cites inadequate existing berthing, scant operational training and the seeming penchant of women to use large amounts of water as sole preclusions to sending them to sea on a regular basis.

• Lieutenant (jg) Bonnie Latsch agrees with LT Johns' first two observations. LTJG Latsch recently returned to NETC Newport from duty as *Sanctuary*'s first lieutenant. She is now assigned to the NETC yard patrol craft division.

LTJG Latsch feels the stringent 15-week curriculum that she completed at Surface Warfare Officer School in 1974 more than adequately prepared her for sea duty. She says she gained "an overall knowledge of the entire ship." (→)

Sanctuary Experience



Above: During *Unitas* visit to South America ports, nurse provides some tender, loving care to young patient who was brought aboard *Sanctuary* for treatment. Below: Liberty-bound lady bids farewell to duty watchstander. Facing page top: A woman of the Navy takes part in a training session at damage control school. Facing page bottom: Navy woman makes it "on the double" to her next shipboard assignment.



To prepare her for her future *Sanctuary* assignment while at SWOS (where she was the only female and senior member of the 99-person class), she studied import and underway watchstanding, division officer management and operations subjects that include navigation and damage control.

As first lieutenant in *Sanctuary*, she supervised a deck force of 25 men and women.

• According to Lieutenant Peggy Harlow, the problems a seagoing administrative officer faces are uncannily like those at a small shore station. Following her tour in *Sanctuary* she has been assigned to NETC's Officer Candidate School operations division.

Aboard ship, her major adjustment was learning how to function as a division officer, something she hadn't done while assigned to Third Naval District headquarters in Brooklyn, N.Y.

Not one to be easily intimidated, LT Harlow stuck to her theory of "give yourself a chance—you can probably do it."

After the initial shock that women would deploy aboard *Sanctuary* in non-corps billets wore off, male crewmembers offered little resistance, LT Harlow remarked.

"We're different. We're new. To a large extent, it's a visible difference," LT Harlow says of the men's first reactions. If women went to sea as a matter of course, "people would just get used to each other."

LTJG Latsch echoes that with her own impression: "It was no big deal," she says of women going to sea.

• The fourth officer who sailed in *Sanctuary* is Lieutenant Mary Anne Gardner. She is a nurse and staff member at NETC's Officer Indoctrination School. While prior Navy experience proved invaluable, she "learned



more in the first three months aboard ship than in her previous three-year tour at the naval hospital in Bethesda, Md."

Health problems encountered during the goodwill cruise, "Operation Handclasp," to Colombia and Haiti in 1973, included those found in America, plus specific cases that involved parasitic diseases and birth defects.

Host country doctors and nurses jointly staffed shipboard clinics with their American counterparts, allowing them to share techniques.

LT Gardner herself had a health problem to cope with during shipboard assignment. While in Haiti she fell and injured her back. A doctor ordered her to soak in hot water. Consequently, she is forced to agree with LT Johns' comment that some women at sea may have a penchant for water.

Able to move only with great difficulty, she managed to negotiate *Sanctuary*'s brow and ladders to the area where there reposed a big, blue bathtub, possibly the only one in the Fleet.

"When I finally had maneuvered myself into position to get into the tub," she recalled, "I felt guilty!"

As far as the four officers are concerned, the question of sending women to sea is moot. "We've proved that we could do it," LT Harlow contends. LTJG Latsch agrees, saying, "It got past the point of being an experiment because it worked."

LT Johns agrees, "Absolutely," he says, and LT Gardner points out once again, "Nurses have been going to sea for a long time."

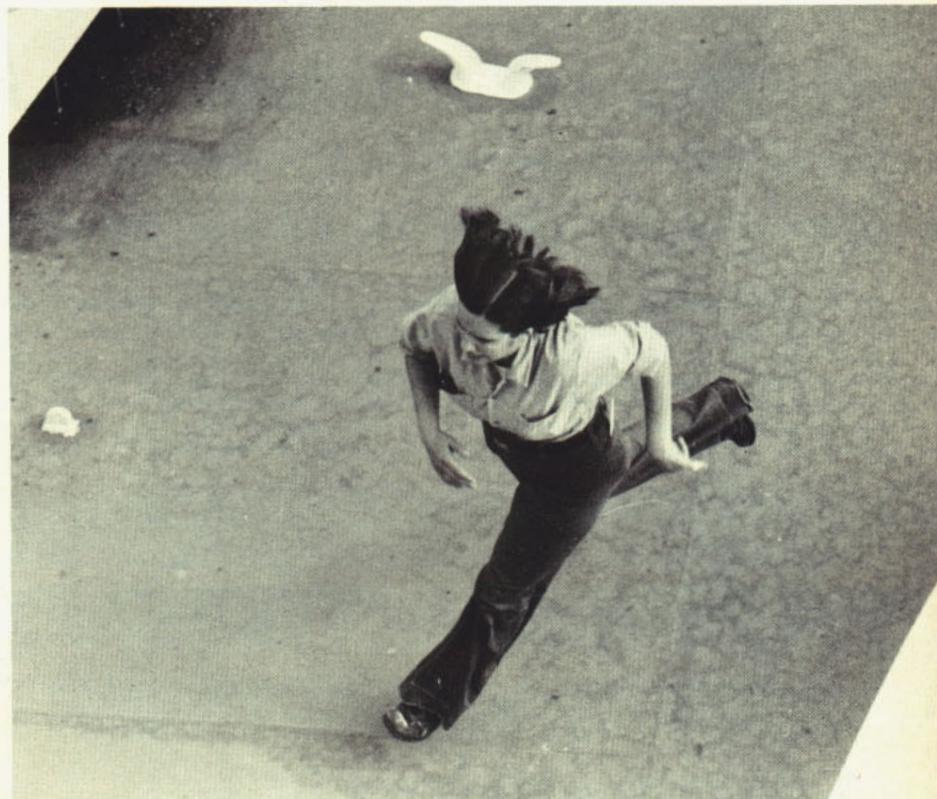
Navy wives reacted to the situation of women serving aboard *Sanctuary* with considerable aplomb, LT Johns added. Many became "sea mothers" and adopted female crewmembers into their families. Inevitably,



wives and adoptees often became personal friends.

What Bonnie Latsch had to say while a SWOS student still holds true: "I'm not trying to prove something. I'm not a women's libber. This is like orders to anywhere else in the Navy where I have a job to do."

So that, in small part, is the Sanctuary experience. It does not mean that women will be sailing in Navy ships in the not-too-distant future. But in an era which has its share of controversial subjects here is one more to add to the agenda. Comment from the Fleet is expected—and invited.



SEQUOIA:

Fitting out the
Presidential Yacht





Not many men today receive orders from their captain to "replank the hull," but a small contingent of sailors in Washington did get such orders.

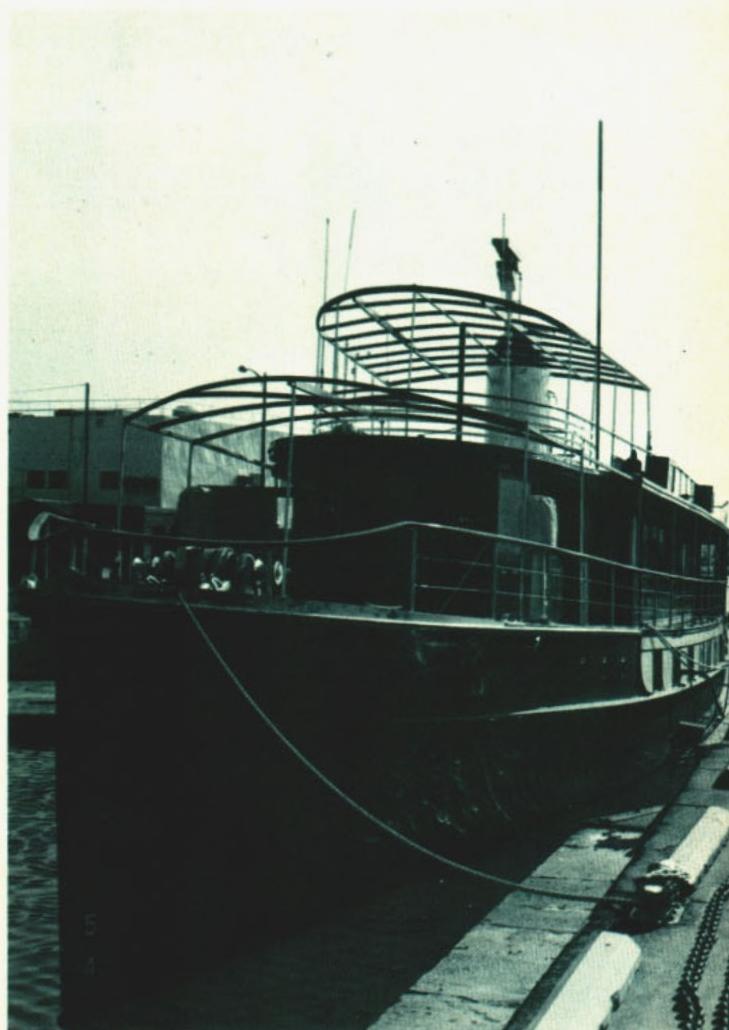
Last winter, the men, attached to the Naval Administrative Unit, replanked approximately one-third of the hull of *Sequoia*, the Presidential yacht. Berthed at the Washington Navy Yard, *Sequoia* is used by the President on the Potomac and Anacostia Rivers during the sailing season, April-October.

Built by the Mathis Shipbuilding Company and launched in 1925, *Sequoia* was christened *Savarona* and was originally owned by Mr. and Mrs. Richard M. Cadwallader of Philadelphia. The Cadwalladers sold her to the Sequoia Petroleum Company of Fort Worth, Tex., in 1928 and she was rechristened *Sequoia*.

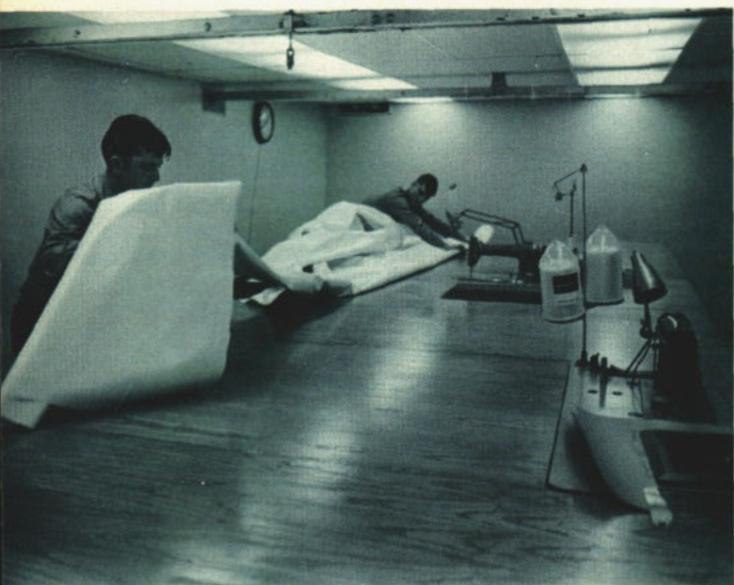
The Department of Commerce purchased the 104-foot, seven-inch boat in 1931 for use as a patrol vessel. She kept the name *Sequoia* and in 1933 was transferred to the Navy for use as one of the Presidential yachts. Designated AG-23, she served Presidents Hoover and Roosevelt until 1936, then she was converted for use by the Secretary of the Navy.

During the period 1936-68, three other boats served the Commander in Chiefs. They included *Potomac*, which served President Roosevelt; the *Williamsburg*, in which Presidents Truman and Eisenhower rode, and the *Barbara Anne-Honeyfitz-Patricia*, one vessel with three names, that served Presidents Eisenhower, Kennedy, Johnson and Nixon.

Under President Johnson, *Sequoia* again became one of the Presidential vessels and her hull designation was dropped from Navy records. Johnson was the last President to use her on an overnight cruise; Nixon used



Facing page: *Sequoia*, before replanking and repainting by Navy Administrative Unit. Above: One of the oldest marine railways in the United States is still in operation at the Washington Navy Yard where *Sequoia* is overhauled. Right: *Sequoia* rests in a slip off the Potomac River after coming out of drydock.



her for brief respites from the rigors of office. This season President Ford, as expected, made his first cruise aboard *Sequoia* as the nation's chief executive.

Whoever rode *Sequoia* this year found her shipshape and ready to cruise at a moment's notice. This is due to the dedication of the men charged with her upkeep and the fact that all *Sequoia*'s maintenance is performed solely by members of the administrative unit.

Sequoia's enlisted boat captain, Senior Chief Boatswain's Mate Lynwood Claytor, supervises her upkeep and maintenance. "We train all our own men and do all the work ourselves," he said. "The entire ship is made of wood and during overhaul we replace all deteriorated wood."

Each year *Sequoia* is pulled into drydock and overhauled. While in drydock she rests on one of the oldest operational marine railways in the United States, built in 1865.

Sequoia's hull, which was once made entirely of juniper wood, is now 80 per cent douglas fir. Chief Hull Maintenance Technician Joseph Brunner, one of the few HTs in the Navy today who still works with wood, explained:

"The reason for choosing fir is its availability and cost. We only accept knot-free because knots could cause seepage."

Most of the wood topside is teak, including the cap boards and deck, which is covered with painted canvas. All the handrails are mahogany and the bright work is chrome.

Below deck, the Presidential cabin is finished in walnut paneling. A small cedar closet is built into one corner of the cabin and two prints of Seminole Indian chieftains hang on the cabin's walls. Three other cabins, the captain's and two guestrooms, are finished in ash wood paneling. The crew's quarters and dining area are finished in teakwood paneling.

Topside are the pilothouse, and main and after salons. From his vantage point in the pilothouse, *Sequoia*'s captain can keep in full view two Coast Guard boats that always accompany the vessel whenever the President is aboard.

As many as 22 persons can be served dinner at a single sitting in the main salon. Normally, the President sits in front of a replica of the Presidential Seal, facing a portrait of George Washington. For larger gatherings, a maximum of 40 people can be entertained buffet style in both the main and after salons. Meals are prepared and then served by the seven-man crew.

In addition to replanking of the hull and upkeep on the engine, *Sequoia*'s crew makes all its own windscreens, curtains and canopies. Working in their own sail loft, the men can fashion canvas and cloth into many functional and decorative designs. And, if any of the upholstery needs repairing, they can handle that, too.

All in all, it is the men of the unit that are preserving this vestige of our nation's history and allowing our President to enjoy a few brief moments of rest and solitude.

—JO2 M. Szostek



Facing page from top to bottom: Two Sequoia crewmen measure canvas before cutting and sewing it into an awning. During each periodic overhaul, Sequoia is repainted and made shipshape for sailing. A cluttered main salon is transformed into a formal dining area by the crewmen. Top of page: Sequoia's fantail is a place where the President can relax after the rigors of a hard day. Above: Sequoia dinner setting. Right: Sequoia at her mooring after replanking and repainting.



from the desk of the Master Chief Petty Officer of the Navy

'Changing the Watch'



MACM John D. Whittet

When I first joined the Navy during World War II, I looked forward to the challenges of sea service. I was proud to have the opportunity to serve my country during wartime, when a country really needs its citizens' support. Three decades and three wars later, my feelings remain the same.

Partly because of these challenges and opportunities, I decided to make the Navy my career, and I dreamed of becoming a respected professional sailor. But, never did I dream that one day I would have the chance to represent our entire enlisted community as the Chief of Naval Operations' senior enlisted advisor.

My naval career since leaving Cranston, R. I., in 1943 has taken me to every corner of the world and has allowed me to work closely with some of our country's finest men and women. Being Master Chief Petty Officer of the Navy has been the most important and rewarding phase of my career and has left me with memories of people,

places, and events that I shall never forget.

Now that the time has come to change the watch, I leave the MCPON billet with no reluctance. While there have been a few difficult times, the rewards of service and the privilege to serve far outweigh any disappointments.

I feel sure that my successor will also sense a feeling of fulfillment and purpose. The new MCPON, Master Chief Robert J. Walker, currently serving as COMNAVAIRLANT Force Master Chief, is an outstanding shipmate who will go forward in pursuit of the best interests of our country, our Navy, and our enlisted community.

One aspect of the MCPON job that Master Chief Walker will surely enjoy will be his frequent contact with the highest levels of naval leadership. During my tour I have been fortunate enough to serve with three Secretaries of the Navy, two Chiefs of Naval Operations, and three Chiefs of Naval Personnel. All of these men have worked diligently for their country and the Navy and have consistently provided the high level of leadership and inspiration necessary to maintain our Navy as the world's greatest.

Under the leadership of these men, I have witnessed many beneficial and necessary changes within the Navy's enlisted structure. These changes have had a significantly positive effect on the enlisted community as is reflected in retention figures which have risen from 11.6 per cent in fiscal year 1971 to 39.9 per cent for fiscal year 1975.

Paramount among these changes were a BEQ management system, and the implementation of the E-7 Selection Board process and the Quality Review Board. Other significant progress was made in sea/shore rotation policies, Navy uniforms, the enlisted evaluation system, and the human goals programs, which include equal opportunity, drug and alcohol rehabilitation, race relations training and leadership management. Two other improvements which I consider to be of the utmost significance were the implementation of the Master Chief Petty Officer of the Fleet/Force/Command program and, more recently, the new Enlisted Records Review Room at the Bureau of Naval Personnel.

None of these changes came easily. Change in a technical operating organization such as the Navy usually requires endless hours of discussion, planning, and difficult decisions concerning the details of any proposed alteration to the system. I attribute many of the advances in our system to two major factors: Teamwork and improved communications.

The Navy works well because people make it work well. Any contributions that the MCPON office may have been able to make have been supported by the efforts of men and women who have given

us the assistance required to encourage fresh, new thinking. I believe these and all Navy members realize that such accomplishments can only be achieved with the cooperation, dedication, and support of everyone in the Navy.

Some of the recent changes are now institutionalized and their benefit to the system already evident. In other areas, such as the entire human goals program and the proposed sea pay proposal, much work remains to be done. I know that your new Master Chief Petty Officer of the Navy will continue to pursue these areas, and I'm sure that he will receive the same cooperation from the fleet that I have enjoyed.

Loyal support and administrative assistance have been particularly notable during my tour as MCPON by my office staff, whose services have been exceptional. My current staff includes YNC Bob Ferris (office manager and administrative assistant), YN2 Barbara Williams (clerk-typist and caseworker), and YN2 Bob Abbott (journalist and caseworker). I have also received valuable assistance and counsel over the years from past staff members YNC Jerry Traver, YN2 Catalina Lopez, and JO2 Steve Maddox, as well as the current Master Chief of the Command for Pers-5 UTCM Bob Evans. I thank each of them for their loyalty, dedication, and devotion to duty.

The immediate family plays a most important role in the career of any Navy member. I have been fortunate to have had support from my wife Helen. For nearly 30 years, which have brought us three children and six grandchildren, we have worked together as a Navy team. Helen continually asserts with pride that she is a Navy wife and a Navy mother.

I also want to thank the men who have served as Master Chief Petty Officers of the Fleet and Force. Each of these has contributed greatly to any success we have enjoyed during my tour by providing invaluable input and counsel.

But, most of all, I want to thank you—my shipmates—for your sustained support. I never traveled to a ship or station where I was not greeted warmly. The input I received from you during my travels was instrumental in providing counsel to our naval leaders whose responsibility it is to make changes when necessary in our regulations and policies. I will always be thankful that I had the opportunity to work and serve with the world's finest men and women, my shipmates in the United States Navy.

So, now the hour is at hand to pass the watch to Master Chief Walker. I wish him and his lovely wife, Frances, the best of luck during their tour. I can assure them they are in for four wonderful, exciting, and unforgettable years.

And, to my shipmates everywhere, I wish you Godspeed.

...and Introducing

The varied responsibilities associated with the position as Master Chief Petty Officer of the Navy (MCPON) demand the utmost scrutiny of candidates when the time comes to pick a new one. That is why only the most skilled and highly recommended individuals make

OSCM Robert J. Walker



...and Introducing

it to the final rounds of selection procedures.

In the most recent search, four Navymen were in the running during final considerations. These included UTCM Robert L. Evans of BuPers, NCCM Charles H. Griva of ComNavSurfPac, PNCM Joe D. Pierce of CNATRA and OSCM Robert J. Walker of ComNavAir-Lant. The age span of these veterans was 38 to 46 and their active service ranged between 19 and 27 years. In a sense, these men represented the best of the Navy.

As is true in most competition, however, there can be only one winner and for MCPON it was Master Chief Operations Specialist Robert J. Walker. The third Navymen to hold this title, he relieved MCPON John D. Whittet in September. He and his wife, Frances, have four children: Robert, Jr., 18; Teri, 15; Michele, 12; and Michael, 12.

A native of Oxford, N. Y., Master Chief Walker was serving as Master Chief Petty Officer of the Force, Commander Naval Air Force, Atlantic, Norfolk, Va., at the time of his selection as the new MCPON. His prior service includes assignments in Korea during which he earned the Korean Presidential Unit Citation; USS *John F. Kennedy*; for which he earned the Navy Commendation Medal for meritorious service; and the Fleet Combat Direction Systems Training Center, Atlantic, for which he earned the Navy Achievement Medal while serving as Senior Enlisted Adviser. His duty stations have ranged from McMurdo Sound in the Antarctic (two tours) to Port Hueneme, and from Pensacola to Saipan.

In addition to his other awards, Walker holds the China Service Medal, Navy Occupation Service Medal,

National Defense Service Medal, Korean Service Medal and the United Nations Service Medal.

In his spare time, the new MCPON is involved with civic league affairs and church-related activities. His wife is also an active community worker, having participated in little league clubs, charity drives and Navy Wives Club functions.

Strictly speaking, the MCPON is not a decision-maker. He may advise, request, suggest, comment, urge or recommend, but is not at liberty, for example, to secure a humanitarian transfer, discharge, or cut a set of special orders. He is an advisor who, by virtue of his office, has direct access to the CNO and CNP.

Even though the MCPON has direct access to the CNO, he does not bypass the chain of command by consulting the CNO every time a sailor has a personal problem. Normally, problems acted upon have been routed to him via the chain of command or are of concern to most Navy men and women.

When the MCPON goes to bat for a Navy person or a cause common to all Navy personnel, he depends entirely on strength of argument and reputation of his office. He reasons on behalf of the enlisted community. The more logical or meritorious the case, the more favorable the consideration is likely to be. If favorable action cannot be taken, the parties involved are notified immediately. All letters addressed to his office are answered.

The job of MCPON requires extensive travel throughout the fleet. In this travel, he keeps abreast of current thinking and has an opportunity to learn what's really happening throughout the Navy.

With his new position, Walker assumed many duties other than Senior Enlisted Advisor to the Chief of Naval Operations (CNO) and Chief of Naval Personnel (CNP). In addition to his advisory functions, he is called upon to testify before Congressional committees and subcommittees. He also serves in an advisory capacity on various boards, including Quality Control Review Board (advisor), Rating Review Board (voting member), Master and Senior Chief Selection Board (advisor), Navy Relief Society Advisory Board (member), National Naval Reserve Policy Board (advisor), Uniform Board (voting member), Navy Wives Club of America (liaison), Nonappropriated Fund Board (voting member), Navy Federal Credit Union (advisory panel), Fleet Reserve Association (liaison), Navy Resale System Advisory Board (member), National Board of Governors, USO (member), and Enlisted Advisory Board to the Chief of Naval Operations (chairman).

If you have a problem, check first with your supervisor or leading petty officer. If it can't be resolved at command level—most problems can—the Master Chief Petty Officer of the Navy stands ready to render assistance. You may write or, for more urgent matters, call his office at autovon 224-4854 or commercially at (202) 694-4854. His office may be reached after working hours by dialing the same numbers and recording a message on the code-a-phone. He can't always help, but he always makes the effort.



NAVAL WAR COLLEGE

Off-Campus and Correspondence Courses

The June 1975 issue of ALL HANDS contained a *Questions and Answers* feature on pages 32 through 37. On page 34 the following question and answer appeared:

Q. Can I get a Naval War College Degree through nontraditional means?

A. Yes, there is an extension course offered at night in the Washington, D. C., area, and a complete correspondence course package offered by the Naval War College. For further information, call ...

Advertising is sometimes a boon to both students and educational institutions but the seven short lines in ALL HANDS have generated a significant reader response based on printed misinformation, centering around the word "degree."

Let us explain. The Naval War College does not grant a degree to graduates of its resident course of studies, to those students who undertake courses by correspondence or to those attending the Washington, D. C. off-campus course. The Chief of Naval Personnel has, however, recognized completion of the *resident* curriculum as the professional military counterpart of an academic master's degree and it is so considered for officer personnel management purposes.

The Naval War College Center for Continuing Education parallels resident courses by offering a one-diploma Naval War College correspondence curriculum of approximately 1000 hours of study. Although students are not obligated to pursue the entire diploma program, they are encouraged to consider the

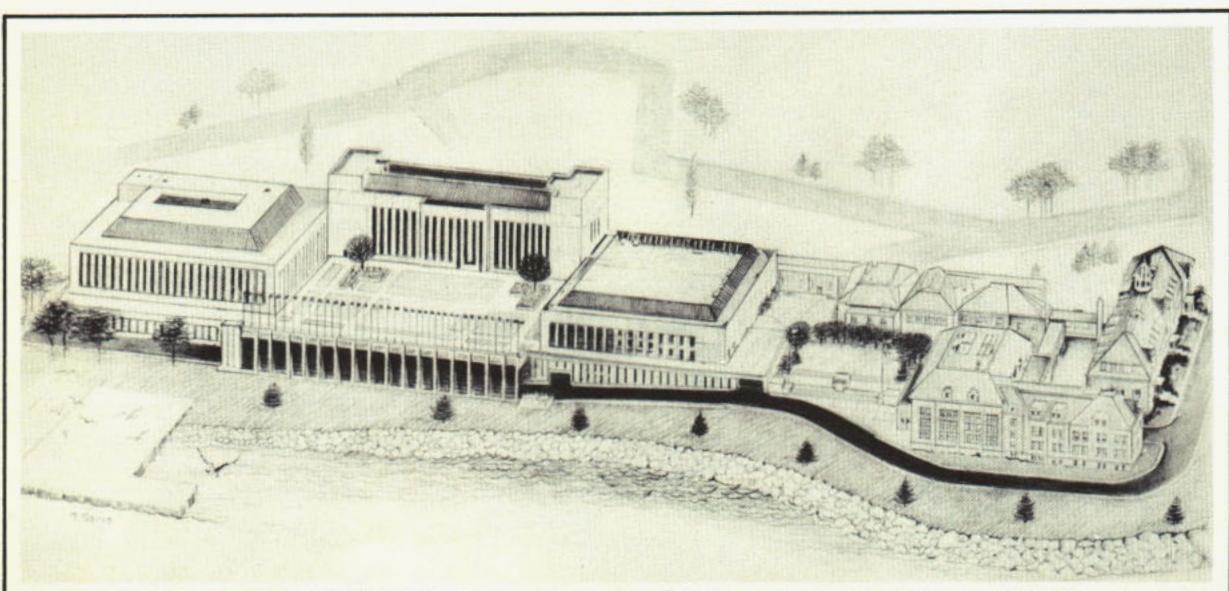
matter. Correspondence courses are recognized as enhancing a naval officer's career as evidenced by the following quotation from the March 1974 *Officer Personnel Newsletter* (NavPers 15892):

"Reporting seniors are encouraged to document, in the comments section of fitness reports, individual efforts at self-improvement. Such documentation should include correspondence courses from various service colleges ... This information is important to Navy Department personnel managers and is often an item of consideration by selection boards."

The 36-week off-campus course given in the Washington, D. C., area is limited at this time to Strategy and Policy, one of the three core areas studied in both residence and in the correspondence courses. A Naval War College certificate of completion acknowledges that a student successfully passed this off-campus graduate seminar study program.

If the question on page 34 were to read: "Can I study Naval War College courses through non-traditional means?" ... the answer would be correct, except for the phone number. The number for this purpose at the Naval War College is A/V 948-3751.

This is an artist's conception of the Naval War College, Newport, R. I., by Anthony Sarro. Left to right: Hewett Hall, under construction; Conolly Hall, currently in use; Colbert Plaza—at water's edge, currently in use; Spruance Hall, currently in use; plaza between new and old buildings, now under construction—has not yet been named; original buildings of college.



navy navy navy navy navy news

• VOLUNTEERS NEEDED FOR '77 WINTER-OVER ON THE ICE

Operation Deep Freeze volunteers are now being solicited by BuPers for the 1977 Antarctic winter-over party. Interested personnel from eligible rates and ratings must submit applications in time to reach the Chief of Naval Personnel not later than 15 Nov 1975 in order to receive full consideration. Applications will continue to be reviewed after that date, but the majority of selections will be made from requests received before 15 November. The best qualified personnel will be selected for transfer and screening in April or May 1976, with deployment to Antarctica about October 1976. The duty will conclude about November 1977. Complete details concerning eligibility; requirements; special benefits, including special duty pay of \$150 per month for six months; and application procedures can be found in BuPers Notice 1300 of 6 Jun 1975, and change one of 9 July 1975.

• APPLY NOW IF YOU HOPE TO BECOME A 1976 WHITE HOUSE FELLOW

If you're interested in becoming a White House Fellow next year, now is the time to apply, especially since applications are very thorough and require some time to complete. They must be postmarked not later than 28 Nov 1975 for consideration, and may be obtained until 10 November by writing the President's Commission on White House Fellowships, 1900 E Street, NW, Washington, D. C. 20415. Of the 2300 applications received by the Commission last year, 14 Fellowships were awarded. Of these, two were Navy -- Lieutenant Commanders Dennis C. Blair and Randall W. Hardy. Through this program, clearly exceptional, career-motivated Navy personnel between the ages of 29 and 36 may be eligible for a one-year assignment to the White House staff or other top level office in the Executive Branch. Candidates will be selected from nation-wide applications by the President's Commission on White House Fellows and will be designated by the President. Full details on the White House Fellows Program are contained in BuPers Notice 1560 of 16 Jul 1975.

• FIVE SHIPS TO TEST 80/20 MANNING CONCEPT

The names of the ships selected to participate in the test of the 80/20 ship manning concept were recently announced. They are: USS O'Callahan (FF 1050), USS Agerholm (DD 826), both homeported in San Diego; USS Jonas Ingram (DD 938) and USS Edward McDonnel (FF 1043), both based in Mayport, Fla.; and USS Richard E. Kraus (DD 849), Charleston.

Under the 80/20 concept, these ships will be manned by 80 per cent of the crew normally assigned to the ship. During mobilization, and for specific training periods, the crew will be augmented by inactive duty selected Reservists who will constitute the remaining 20 per cent. Reservists will come from five ship reinforcement units (SRUs), two of which will be located in the general vicinity of their ships' homeport. Three such units will be located inland to test the feasibility of locating SRUs in cities remote from major Navy ports. Location of the SRUs has not been announced.

• FIVE MORE COLLEGES JOIN NAVY CAMPUS FOR ACHIEVEMENT

Five schools were recently added to the growing list of educational institutions participating in the Navy Campus for Achievement (NCFA) College degree and certificate program. They are: Shelby State Community College

briefs navy navy navy navy

and State Technical Institute, both in Memphis, Tenn.; Skagit Valley College, Mount Vernon, Wash.; Los Angeles City College, Los Angeles, Calif.; and Mohegan Community College, Norwich, Conn. NCFA schools offer centralized administration, information and financial assistance for Navy students, waive residency requirements and accept credits earned through "non-traditional" means such as service schools, CLEP, PACE, correspondence courses, other self-study programs and, in some cases, for military on-the-job experience.

- SASEBO SUPPORT FUNCTIONS TO CONSOLIDATE

Support functions now being performed by Fleet Activities at Sasebo, Japan, naval complex are scheduled to begin consolidation in the near future. The move is being made as part of the Navy's continuing efforts to ensure maximum use of manpower and equipment resources. The consolidation is to be completed by the end of June 1976. Officials said the action will not have an adverse effect on the operating forces of the Seventh Fleet. USS White Plains (AFS 4) is to be reassigned permanently to NavBase Yokosuka and USS Mars (AFS 1) and Commander ServGru Three are to remain at Sasebo for the present time.

- RELIEF FOR FLIGHT SURGEON SHORTAGE IS ON THE WAY

BuMed recently introduced the Aviation Medical Officer (AMO) Program, designed to help relieve the critical shortage of flight surgeons. Navy doctors trained as AMOs will be assigned to base dispensaries and other activities to provide primary patient care and will act as backup support for flight surgeons. They will perform flight physicals, provide routine medical care for uncomplicated illnesses involving aviators and other air-crew personnel, and be authorized to sign aeromedical clearance notices.

AMOs are now being trained at the Naval Aerospace Medical Institute, Pensacola, Fla. The curriculum covers all aspects of aviation medicine, including physiology, flight examinations and special medical problems unique to flying personnel. AMOs do not receive flight training nor are they assigned duty involving flying. They will be assigned a secondary naval officer billet classification (NOBC-0008). Four-week orientation courses are scheduled to begin 3 Nov 1975, 2 Feb and 3 May 1976. Interested medical officers should apply via BuMed to the Commanding Officer, Naval Health Sciences Education and Training Command, National Naval Medical Center, Bethesda, Md. 20014.

- PRESIDENT FORD BREAKS GROUND FOR MILITARY MEDICAL UNIVERSITY

President Gerald R. Ford joined the Secretaries of defense and the Navy and congressional leaders recently in ground breaking ceremonies for a new military medical school. The Uniformed Services University of the Health Sciences (USUHS) will be located on a 90-acre campus on the grounds of the National Naval Medical Center, Bethesda, Md. The first building, a \$9.4 million Basic Sciences classroom and laboratory building, is scheduled to be completed in Fall 1976. Current plans call for several other buildings to be added over the next few years.

USUHS was established to train doctors for the Army, Navy, Air Force and Public Health Service and will accommodate 600 students when completed.

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Clinical training will be provided by the National Naval Medical Center, Walter Reed Army Medical Center and Malcolm Grow Air Force Medical Center. Other military and government medical facilities in the capital area will be used by the students such as the National Library of Medicine, the Armed Forces Institute of Pathology, and the Center for Disease Control.

Upon graduation, students will receive a Doctor of Medicine Degree, be commissioned in one of the uniformed services, and will be required to serve at least seven years' active duty. The charter class of 36 students is to begin studies in the fall of 1976 and will be temporarily housed at the Armed Forces Institute of Pathology until USUHS construction is completed. (For more information on this school, see the article in the December 1974 issue of ALL HANDS, Page 34).

- LAST CALL FOR 1975 ALL-NAVY CARTOON CONTEST ENTRIES

If you don't have your All-Navy Cartoon Contest entry completed yet, you'd better get busy. Deadline for entries is 1 October. Competition is open to personnel on active duty in excess of 90 days, and their dependents. Entries this year will be judged in three separate categories: active duty, dependents and Bicentennial-related. Contest rules may be obtained in ALL HANDS, June 1975, p. 52, or from your special services officer.

- LOOKING FOR A GOOD PLACE TO EAT? TRY ONE OF THESE

Winners of the 1975 Ney awards were recently announced by SecNav. The awards, which are presented for outstanding accomplishment in enlisted dining facility operations, are made each year to shore commands and large, medium and small afloat commands. This year's first place winners are NAS Whidbey Island, Oak Harbor, Wash.; USS Illusive (MSO 448); USS Concord (AFS 5); and USS Canopus (AS 34). Second place awards went to NavTechTraCen Corry Station, Pensacola, Fla.; USS Welch (PG 93); USS Dale (CG 19); and USS Constellation (CV 64). Third place winners are NAS Guantanamo Bay, Cuba; USS Cree (ATF 84); USS Shasta (AE 33); and USS Ajax (AR 6).

- 10 OCTOBER PROCLAIMED 'NAVY UNIFORM DAY'

Friday, 10 Oct 1975, has been officially designated "Navy Uniform Day" in honor of the Navy's 200th Birthday. On that day, all active duty, Reserve, NROTC, NJROTC, Sea Cadets and retired Navy people will be encouraged to wear their uniform, preferably service dress blue. "Uniform Day" is designed to demonstrate the number and occupational variety of Americans who are a part of the Navy family. This year Navy Birthday, 13 October, falls on a legal holiday, and the preceding Friday, 10 October, has been selected to officially open the Navy Birthday weekend. Further details on plans for the Navy Birthday celebration are contained in OpNav Notice 5060 of 18 Jun 1975.

- "HOW TO" FILM ON PREPARING "ENVIRONMENTAL IMPACT" STATEMENTS

A Navy film entitled "Preparation and Processing of Environmental Impact Statements" is now available for commands wishing to provide staff indoctrination necessary for compliance with the National Environmental Policy Act (NEPA). The 20-minute film "walks" a prospective statement or assessment pre-

briefs navy navy navy navy II

paper through the origins of the law, applicable instructions, content of statement or assessments and review and filing procedure. Those interested in obtaining short-term loans of the film should forward requests directly to CNO (OP-453), or call E. W. Johnson on autovon 22-73639.

- VA PUBLICATIONS AVAILABLE THROUGH NAVY SUPPLY SYSTEM

Career Counselors, Senior Enlisted Advisors and other interested individuals are reminded that various Veterans Administration forms and pamphlets are available through the Navy supply system. These publications contain information on VA benefits in such areas as education, insurance and loan guaranty entitlements. For more information, see BuPersNote 1790 of 4 Jun 1975.

- USS WAINWRIGHT VISITS ROMANIAN PORT

USS Wainwright (CG 28) recently became the first U. S. Navy ship to visit Romania since World War II. During a four-day visit to the Black Sea port of Constanta the ship was opened to visitors and her crewmen were permitted to visit the Romanian training ship "Mircea." The port visit was a part of an effort to promote good will and mutual understanding between Romania and the United States.

- FLEET READINESS PLAN ANNOUNCED

By mid-1976, an additional 6000 petty officers will be at sea in a move to elevate fleet manning to 100% and drop shore manning accordingly.

Approved by CNO, this fleet readiness improvement plan essentially calls for screening service records of about 20,000 excess and overtoured petty officers ashore and involves the following specific actions:

- o Phased return to sea of those in undermanned ratings who have been ashore in excess of 24-36 months (depending on specific shore assignments);
- o Selective return to sea of petty officers in overmanned ratings to ease burdens on undermanned ratings (i.e., watchstanding, master-at-arms, etc.,) by allowing them to devote full efforts to skill-related matters; plus:
 - o Selectively extending short sea tours and decreasing long shore tours.

Under the plan, the first orders will be issued in December 1975 for February 1976 moves. In January, selected personnel at sea will receive extension notices. These initial rotation actions will be concentrated on alleviating E-5 through E-9 shortages in ratings manned at less than 90% at sea.

Total numbers of personnel affected in each rating have not been determined and will not be known until the sea/shore rotation length review is completed, probably by 1 Oct 1975. However, since the plan deals with personnel ashore in excess of tour lengths, as well as some whose rating tour lengths will be adjusted, it will involve all Navy ratings to some degree.

Under this new policy, personnel will not be extended at sea beyond the five-year maximum unless it is by individual request. Shore tours will remain a minimum of 24 months. Looking ahead, three years at sea and three years ashore remain the ultimate sea/shore rotation goal. All personnel affected by this Fleet Manning Program will be notified a minimum of 60 days in advance of any change in their status.

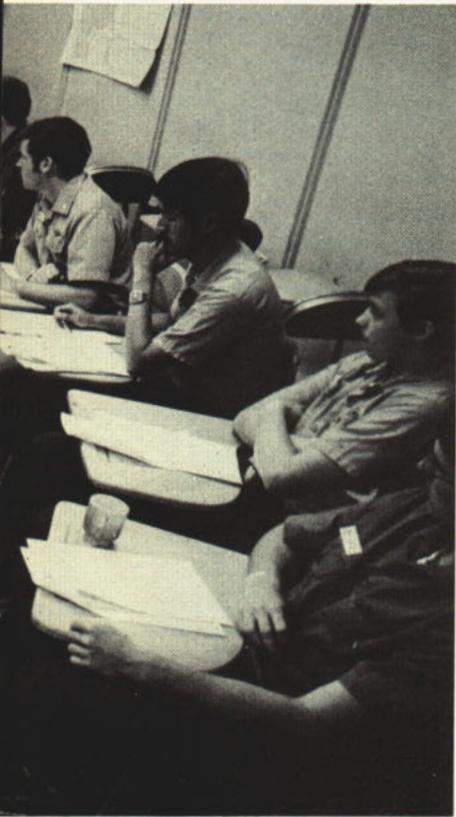
Aware and Communicating . . .

Skinny Dragons o



Above: VP-4's Human Relations Council. Right: YN3 R. A. Dobson, Race Relations Team, shows team sponsor, ENS T. L. Huggins, some of the literature he's assembled for Black History Week. Far right: YN3 E. C. Ku, administrative department, is a member of the Environment Team. Squadron has four human relations teams.

f VP-4



The "Skinny Dragons" of Barbers Point, Hawaii-based Patrol Squadron Four have a long tradition of operational excellence, but they also pride themselves on an effective human relations council. Composed of 24 members, this group has differences in levels of enthusiasm, but all agree their efforts are worthwhile.

In the words of Commander James A. Messegee, the squadron's commanding officer, "We've got a good, effective council because we've got good people in the program. They work at it . . ."

VP-4's council, however, didn't always function as effectively. In the fall of 1974, it was concluded that the existing group wasn't fully effective as a tool of leadership or in responding to needs of squadron personnel. Thus, the council was reorganized into four teams, each with specific responsibilities in the areas of race relations, environment, drugs and alcohol, and E-4 and below.

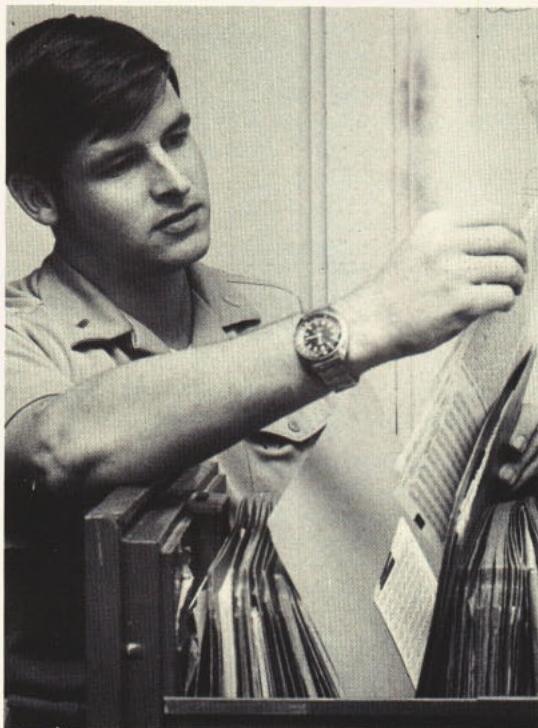
Under this new organization, all members of the teams are volunteers and each team has an officer sponsor to assist, while leaving control of activities to the members. At regularly scheduled council meetings, all levels of the chain of command are represented, including the CO, XO, department heads and interested division officers.

VP-4's human relations council reinforces the chain of command, while the teams maintain one-to-one contacts with individuals in the shops and air crews. This allows the council to fulfill the twofold purpose envisioned—to address and study real and perceived problems, and to provide an improved flow of information, both up and down.

"In a very real sense," says CDR Messegee, "the council is a safety valve, relieving pressures before they can build up."

About the time VP-4 was reorganizing its program, the command underwent a human resources availability assisted by the Pearl Harbor Human Resources Management Center. The "command atmosphere" survey





conducted in the availability provided a broad statistical information base which was immediately used to pinpoint areas needing attention.

One of the first concerns was to make command personnel aware of the council and the special teams. A centrally located bulletin board was devoted to pictures and names of members of each team. In addition, the members made a special effort to circulate more and introduce themselves.

"People are aware of us now; they know who we are," says AMS3 J. B. Youngs. "That's a big improvement over the old council." AX2 G. A. Kerr adds, "When we started out, there was a feeling that the command lacked sensitivity to minor problems or petty grievances . . . We didn't have much credibility . . . people didn't trust us and some of us didn't trust the chain of command. Now we've learned what it takes to get changes made in the command and people have more confidence in us . . ."

The primary effect of VP-4's human relations council

Facing page top left: LTJG J. W. Rightmire, squadron Human Relations Officer. Top right: MS2 V. M. Francisco, a member of the Race Relations Team. Bottom left: LTJG J. C. Michelsen, communications officer, and Environment Team sponsor. Bottom right: AN D. L. Kimmey, line division, and member of the Race Relations Team. Below: AX2 G. A. Kerr, maintenance department, and member of Race Relations Team.

so far has been in the area of improved awareness and communications, but it also has scored some concrete achievements as well. The environment team, reports SN D. T. August, "assisted in getting a vacuum cleaner donated by squadron wives to the men living in bachelor enlisted quarters, and some progress has been made in things like watchstanding and the general atmosphere at the BEQ."

According to council member YN3 R. A. Dobson, "The only way we can be effective is if every individual contributes something and believes in what he's doing. The people make the program. Our council has dedicated, determined people and it's been good for squadron operations and the command as a whole."

This is evidenced in several squadron statistics. For fiscal year 1975, VP-4 has averaged 54 per cent first-term reenlistments. In the August 1974 promotion cycle, 100 per cent of participating personnel passed the examinations and 77 per cent were promoted. Also in 1974, the squadron received the Arnold J. Isbell Trophy as the Pacific Fleet VP squadron demonstrating the "greatest degree of professionalism and effectiveness during operational ASW missions."

—Story by JOCM K. R. Woodhead

—Photos by PH1 W. B. Fair





Diving School

"Red diver! Topside! Lie on your back!" The instructor's order is relayed by a student through a metal box which, seconds later, crackles, "Red diver! Lying on my back!"

"Yellow diver! Roll over on your left side! Then stand up on the workbench!"

Wind whistles over the deck and the water laps against the sides of the 3500-gallon training tank. The barge which houses this Second Class Diving School is docked at the Naval Station San Diego pier. The majority of all Navy divers get their training here, along with the Army, Air Force, Marine Corps and some civilian divers.

The school, an annex of Service School Command, San Diego Naval Training Center, offers a four-week scuba course and a 10-week hard-hat diving course. Hard hat refers to the outfit worn by the diver—190 pounds of equipment from headgear to shoes. After five weeks the hard-hat divers are ready to don their suits and take a test dive in the 10-foot training tank. They must be helped into the outfit, starting with the shoes— $17\frac{1}{2}$ pounds each—to the 84-pound weight belt and, finally, the breastplate and helmet, 54 to 64 pounds.

Once the diver is lowered into the tank the instructor begins with simple instructions. Primary means of communication is voice, which the diver receives through his headgear. He responds to each command as he performs the ordered task.

The student is getting an idea of how to maneuver himself in the outfit, which has buoyed considerably

Left: Petty Officer 3rd Class Gary Loberg is ready for his training dive. At the very least, he likes his work. **Right:** Novice divers may be observed from portholes near the bottom of the diving barge training tank.

in the water—it now "weighs" only 20 to 30 pounds. Since more than one diver uses the tank at a time, students are given color codes so that the instructor can identify each when giving orders.

A secondary means of communication is the hand signal system on the lifeline and air hose which students are very familiar with before they take the test dive. In case the talk or voice system should fail, the diver could be signaled back to the surface by tugs on the hose. The diver can also control his own buoyancy with a valve, although he is discouraged from using this means of control on his first dive.

All instruction at the school is given by first class or master Navy divers. There are only two master divers at this school—Chief Petty Officer Frank J. Buski and Senior Chief William A. Gholson. School director is Lieutenant Commander Richard G. Brereton.

"The Second Class course is booked up until next fiscal year," said Buski. There has been even more competition for entrance to this school since Key West closed its diving school, and Washington, D. C., discontinued its second class diver training.

There are usually 20 to 30 students in a class and a new group starts every fourth week. Two or three

classes are going on all the time. There are four instructors per class.

"These classes are really too large," said Buski. "An ideal class would be 10 to 14 students. The more we can individualize instruction, the better the product we can turn out."

Entrance requirements for the Second Class Diving School are stiff. The student is obligated to at least 18 months of service and most have served in a ship for a year or more before coming to San Diego. There is a rigorous physical test and an indoctrination dive which discourages many would-be divers. Except in special circumstances, divers must be age 30 or under to start the course.

Once the course is completed, the Navy has plenty of work for the second class diver, including searches, ship repair, reconnaissance work and salvage diving.

It's a tough course, according to Buski, with a lot of competition for entrance. But quite a few men apparently find the idea of a diving career worth the challenge.

—Story by Laura Beach

—Photos by PH2 Douglas Cunningham



UNDERWATER PHOTOGRAPHY



When the average person thinks of a photographer, he usually visualizes a person with camera in hand and feet planted on solid ground. But the visualizations of nine sailors assigned to the Atlantic Fleet Combat Camera Group (AFCCG) are somewhat different. They think of a person with camera in hand, with scuba tanks and swim fins to propel him through the dark depths of the ocean.

The nine men assigned to the Norfolk-based unit's Diving Locker specialize in underwater photography. They have all attended Navy photo school in addition to a variety of diving schools.

Underwater photography is demanding and requires a special breed of man, one with a unique blending of courage, strength, intelligence, and an artistic eye.

Chief Photographer's Mate Richard Johnson, a qualified 1st Class Diver (hardhat and mixed gases), who heads the diving locker, has these qualifications.

Johnson says, "When we are underwater we're in an alien environment and not only must we concern ourselves with the many things that allow us to survive, but also we must keep in mind proper focus, exposure and composition of photographs."

He said that of the more than 2500 photographers in the Navy, there are only about 25 who specialize in underwater photography.

Johnson and his men do both still and motion picture photography, using a wide variety of cameras installed in specially designed underwater housings. Photography accomplished by divers covers a wide range of subjects such as ocean floor surveys, salvage operations, cavitation studies and ship hull surveys.

Like other divisions of AFCCG, the diving locker is mobile, with men and equipment ready to deploy anywhere in the world in a matter of hours. Chief Johnson, a veteran of 22 years' naval service, 12 as a diver, said that their varied assignments carry him and his men from the ice-covered waters of the arctic to the tropics.

The diving and photographic equipment in the inventory includes inflatable, outboard-powered boats; electric-powered swimmer propulsion units; and the latest in scuba, camera and underwater lighting equipment.

In addition to knowing how to operate a wide range of equipment, the men can also perform maintenance

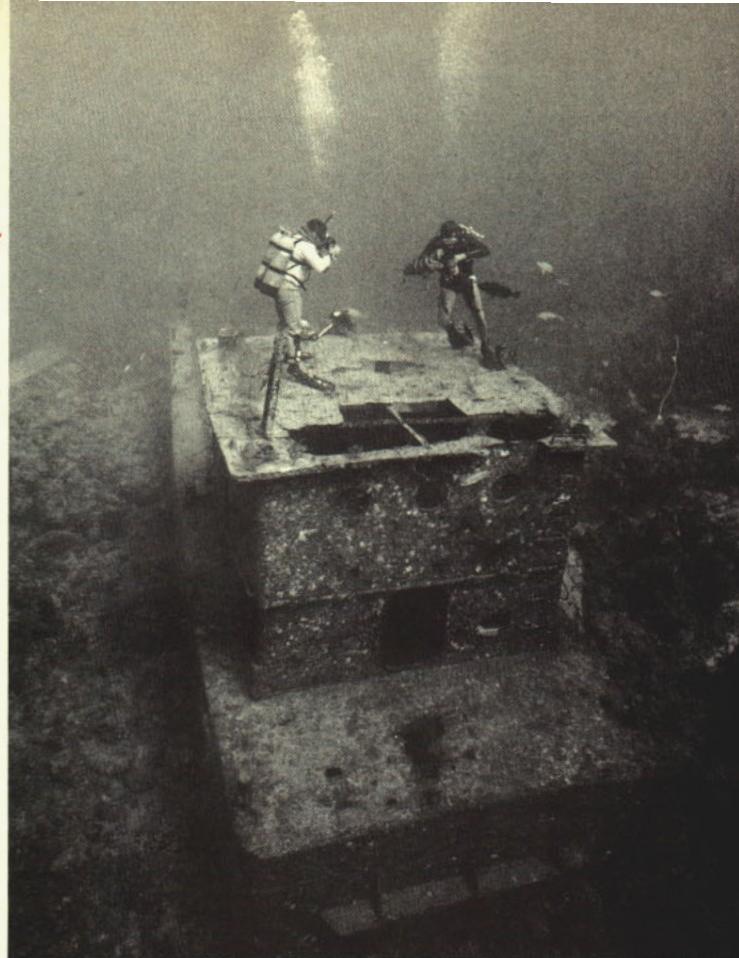


and field repair. "We have to be able to repair our equipment," said Johnson, "because one day we might find ourselves with a defective piece of gear while we are 1000 miles from the nearest repair point. The success of an operation depends on our being able to dive and get desired photographs on schedule."

Physical fitness is a must for divers and those assigned to AFCCG keep in peak condition with a minimum of 30 hours spent each month in strenuous exercise. Johnson said he and his men do group rather than individual exercise because it develops team spirit and comradeship essential in operations where safety is dependent on the buddy system.

Although the nine men assigned to the diving locker come from widely different backgrounds and have wide age differences, they all have two things in common: their love for diving and interest in photography.

—Story by PHC Arnold A. Clemons
—Photos by PH1 Steve Waterman



Facing page: Taking a break from his photographic tasks, Chief Photographer's Mate Richard Johnson feeds several curious groupers. Above: In the waters off Andros Island in the Bahamas, divers work over sunken hulk of Navy landing craft. Right: Armed with underwater cameras and lighting equipment, divers photograph sunken hulk.



Yeoman 2nd Class John D. Adkins **Crossroads**

"You might say I stand at the crossroads," said Yeoman 2nd Class John D. Adkins. "If not where the rubber meets the road, then, where the paper meets the file folder."

Could he be serious?

Then a smile lights up the corners of his eyes; it moves down and breaks across his face. That's the humor of Adkins, a very human person, determined to treat people as people in an age of dehumanizing technology.

Adkins is serving aboard the newly commissioned nuclear submarine USS *L. Mendel Rivers* (SSN 686). For his ship's 120 officers and men, he and his boss—Chief Yeoman Gene Simpo—help with the details, large and small, of military careers.

John is seriously interested in "his people," all aboard the nuclear submarine. He gets deeply involved in the details of individual reenlistments, school requests, medals-awards, and even pinch-hits as a career counselor.

His typewriter sounds like a replay of the gunfight at OK Corral. In the carriage you'll find anything from an award request, a piece of correspondence, to an explanation of a new reenlistment program. He deals in career-moulding items.

"Being on board a sub is independent duty of sorts," he said. "The men really depend on you for so many

things and I owe it to them to let them in on everything that might benefit their careers.

"We all kid about every action starting with a piece of paper but there's a great deal of truth in that. The job is challenging because all the ship's operations orders, instructions, notices, plans, correspondence and service records come this way.

"Although the buck doesn't stop at my desk, you might say it pauses there to be processed."

John and his wife, Georgia, are both Navy juniors, and submarine juniors at that. His father retired off USS *Trigger* as a chief electrician's mate in 1966. Georgia's dad is a retired chief electronics technician—Emmitt J. McPhearson—who served aboard the fleet ballistic missile submarine USS *Patrick Henry*. The Adkinses met in Groton and married in New London—where else?

As a second-generation submariner, John is proud of his work and the challenge and satisfaction that such a life offers.

"For a career in administration, there's hardly a better assignment. You have a chance to work in virtually every area of your field. This keeps me alert, gives me a chance to learn time management skills, and develops my abilities to the fullest," says Adkins.

—Story by JOC Scott Hessek

—Photo by PH2 Karl Simon



Chief Radioman Amos Parker **Masters Aikido**

All sorts of Americans are dancing the "kung fu" and even children know how to fake a karate "chop," but who knows the graceful moves of "aikido?" One man who does is Navy Chief Radioman Amos L. Parker of Yokosuka's Naval Communications Station.

As a matter of fact, this chief petty officer is one of the most accomplished non-Japanese practitioners of this martial art in the entire world. The six-foot, 200-pound Navyman has studied the Yoshinkai form of aikido over 12 years to become one of only two people outside Japan with a fourth-degree black belt.

"Aikido" (pronounced AH-EE-KEE-DOH) is a relatively new name for an ancient Japanese method of self-defense. Its name translates as "harmony," "mind," and "way." Its basic premise: to follow the path of least resistance.

As Chief Parker explained it, aikido differs from other martial arts in style as well as philosophy. "The movements are smooth and circular, with an emphasis on correct balance," he said, "and the object is to become one with the opponent, not to oppose him. We use no jabs or punches.

"This is definitely a passive art," he continued. "We try to relearn what people have forgotten from their childhood: being rigid can be a weakness. We simply redirect opposing forces; we don't initiate them."

The 38-year-old chief took his first lesson in Yokosuka's Thew Gym in 1963, only two days after arriving in Japan to work with U. S. Naval Beach Group, Western Pacific Detachment. He now teaches about 10 students on Monday and Wednesday evenings in the same gym.

In the style of aikido that Chief Parker studies, the basic stances are taught first, from which the proper attitude should follow. "Beginning students sometimes get discouraged when they find themselves 'dancing' instead of throwing people around," he said. There are about 150 basic techniques, with about 10,000 variations. "You always have to start with the basics," he said, "which in aikido means no fighting, and a lot of practice in balance and position."

Unlike judo, karate or kung fu, aikido students do not advance through competitions since the use of strength and discord are deemphasized. Instead, an expert from Tokyo observes exhibitions showing how well the student has mastered a set series of techniques.

The chief feels that the years he spent learning aikido have influenced him in all aspects of his life. Although he's only used the art once in an emergency (as a shore patrolman), he called aikido a great help in keeping his

good health and peaceful disposition. "I've learned to flow with the stream," he said.

Even though he has achieved excellence in aikido, Chief Parker is not smug or self-satisfied. He recalled the story of the old master who had earned the highest degree of black belt and could take on 18 opponents at once at the age of 72. "He said he still felt that he had not even scratched the surface. If that's so," the chief laughed, "I haven't even landed on it!"

Chief Parker plans to attend Sophia University in Tokyo later this year to improve his Japanese language and develop further in aikido. "I really look forward to talking easily with my Japanese friends and fellow students," he said.

Combining an American drive for being the tops in his field with Oriental patience and dedication to discipline, aikido-expert Parker is also a Western master of meeting the East and enjoying it.

—Story & photos by JOSN Tim Carney





PROFILES
OF THE FLEET

Hines & Boulton **Corpsmen**



Above: Hospitalman Willie Hines measures a new patient. Right: HN Kathy Boulton takes a blood sample.

"Rewarding and fulfilling," is the way Hospitalman Kathy Boulton describes her work at the Regional Medical Center at Naval Air Station, Jacksonville, Fla. Kathy, a medical technician, is assigned to the psychiatric and neurology department where she's getting experience and developing medical skills while working in the Center's emergency room.

"The Navy is teaching me a profession that I thoroughly enjoy, one that I'll be able to use the rest of my life," she says. Her pursuit of education, especially in her chosen career field, remains uppermost among Kathy's immediate goals.

Having received permission to enroll in the Emergency Medical Technician and Paramedic School, Kathy plans to enter this month. As for the future, she hasn't any plans except to be involved in medicine in some way the rest of her life.

If Hospitalman Willie Hines ever settles down to a wife and family, he won't be able to plead ignorance when it comes time to hold, feed or diaper-change a baby.

Hospitalman Hines, stationed at the Naval Regional Medical Center at Charleston, S. C., has been working for the past seven months in the pediatrics ward of the hospital, where children through the ages of 13 years receive care.

His duties range from the not-so-glamorous-but-very-necessary diaper-changing to checking vital life signs of the infants and children assigned to him, to assisting the doctor in the treatment room when it is necessary, to putting a fresh bandage on a wound.

When a child enters the hospital, he is very likely in pain, lacking appetite, unaccustomed to hospital personnel and routine, and justifiably confused. Consequently, Hines feels one of his most important jobs while working with the children is helping them make a smooth transition from home to hospital. "Kids are in a strange land here," he says. "I have to try to make them feel at home."

Willie talks as he feeds his young patient and takes its temperature; he winds a music box and places it in the crib next to a wide-awake child. He goes out of his way to retrieve a stuffed animal from the floor and return it to its owner.

The world of children is not an entirely new one to Hines since he often cared for his four younger brothers and sisters before he came into the service.

Upon graduating from Hayes High School in Birmingham, Ala., in 1973, Willie went to college for a time and then decided to enlist in the Navy to have the educational benefits of the G. I. Bill when his four years end.

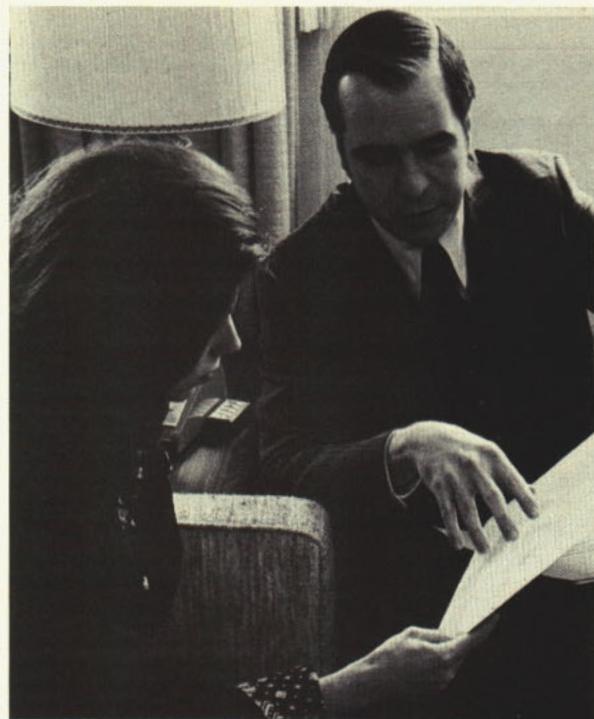
During his off-duty hours, Willie enjoys reading, with subjects ranging from mystery to medical books, and sports, particularly basketball.

Willie is now hoping to receive further medical training at Oakland, Calif., to become a lab assistant. He admits to having a fascination for learning about diseases of the blood and he wants to learn all he can about the subject.

—PH3 Patti Phillips, USN



Cdr Robinson White House Fellow



Secretary of Housing and Urban Development Carla Hill discusses an assignment with White House Fellow Commander George Robinson.

Since 1964, the White House Fellows program has provided gifted and highly motivated young Americans with firsthand experience in national government.

During their one-year assignments as assistants to cabinet officers or White House staff members, Fellows become involved with the leadership in America.

Fifteen Fellows were selected in 1974 from more than 1300 applicants. Commander George S. Robinson was one of them—only the third Navy man to be chosen since the program began.

It's difficult to generalize about the assignments given to White House Fellows, but all demand flexibility, exacting work and the capacity to learn quickly. Rather than fit the Fellows to their pre-Fellowship specialties, the program aims to "tap all their resources."

"Even though my job does not really correspond with being a Civil Engineer Corps officer in the Navy," Robinson said, "I now have a much better understanding of high level leadership and management. It has been both broadening and maturing."

In just seven months, Robinson had discussed national housing problems at all levels of society ranging from Indian chiefs to the Secretary of Housing and Urban Development (HUD). He also had an opportunity to talk with President Ford, cabinet members and others.

"I've been totally involved with the program since my first days as special assistant to the secretary of HUD," Robinson said. After just four days on the job, Robinson was tasked with organizing presummit conferences on housing and construction costs, as a prelude to the President's conferences on inflation last October.

During the past 11 years, White House Fellows have

dealt with many problems, walking the streets in the big city ghettos, sharing the 0800 to 2400 schedule with D.C. patrolmen, talking with heroin addicts enrolled in the methadone maintenance programs, and searching for answers to the poverty of Appalachia.

Robinson toured Indian huts near Phoenix, Ariz., last fall seeking solutions to housing problems. His report was part of a briefing for former HUD Secretary James T. Lynn, before a conference with more than 700 Indian leaders.

In addition to their regular duties, Robinson and other White House Fellows meet three times weekly, in off-the-record discussions with prominent government officials, business and world leaders and members of the press.

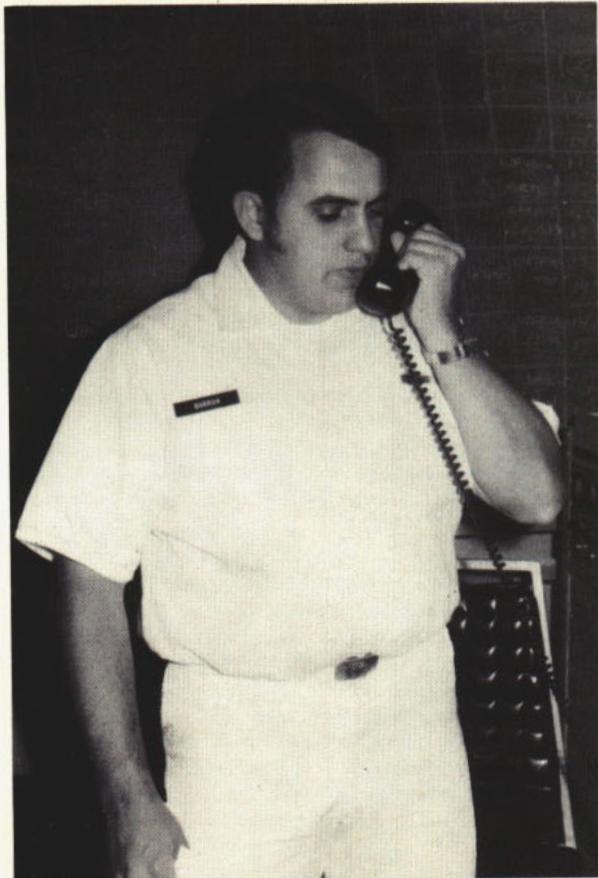
For further exposure to national and to international affairs, the Fellows travel to other countries; the 1974/75 Fellows selectees made a trip to Canada and recently visited Alaska where they talked with government and business leaders, and toured Eskimo camps.

If you would like to enjoy experiences similar to those of CDR Robinson, you may request an official application form from the President's Commission on White House Fellows, 1900 E Street, N. W., Washington, D. C. 20415. The application period opens 1 August and continues through 1 Dec 1975. Selection of Fellows is made the following May for a Fellowship of one year beginning September 1976. Military applicants should be at least 29 years old but not older than 36 by 1 Sep 1976. Additional information concerning this prestigious program has been promulgated in BuPersNote 1560 of 16 Jul 1975.

—Story & photos by JO3 Kerri Childress



Brass Pounders



You have to go a lot south and some east in Virginia to the Dismal Swamp area before you find the quiet little town of Northwest. They were pounding brass down there not so long ago—lots of it.

There used to be a lot more brass-pounding than there is now. It was out there on the high seas with darkened skies and thunderous winds that old "sparks" came into his own. It is no wonder that calls like NSS and NAA were blazened into the logbooks and hearts of wireless men of an age upon which the sun now sets. Manual Morse was the language of communications back then, and you knew a man by his sending "fist"—the swing of his key.

All of these memories returned when some of the modern-day CW men gathered at Naval Communications Station NAM to participate in this year's Armed Forces Day Communications Exercise.

Each year, thousands of United States radio amateurs using their own FCC-approved frequencies and call signs exchange signal reports with several Department of Defense radio stations as part of the Armed Forces Day Exercise. These stations are WAR and AIR in the Washington, D. C., area, and NAM and NPG, operating in the Norfolk, Va., and San Francisco, Calif. This annual event has been going on for 26 years, but some of the earlier naval communications with radio amateurs date back to 1925 when U. S. "ham" operators assisted the Navy in the operation of a short-wave station aboard USS *Seattle* (CA 11) during a cruise to



LEFT: ET1 Walt Barron, like many other hams, operated NAM on his own time "just for the fun of it." Above: Young Bobby Allen spins the dial of one of NAM's radio teletype receivers while his father, Chief Sid Allen, supervises. Facing page, right: Chief Warrant Officer Dave Hassall, organizer of the 1975 communications exercise at radio station NAM.



the South Pacific with stopovers in Australia.

The purpose of this annual exercise is twofold: First, it is used to develop and test emergency and backup communications procedures and facilities at the Armed Forces stations, to ensure that in case of natural disasters, message traffic could be passed. Second, it allows both the Armed Forces stations and amateur radio stations to verify their signal effectiveness.

For example, at the Navy's Northwest (Virginia) Receiver Site, backup amateur radio receivers were employed instead of the higher performance U. S. Navy ship-to-shore high frequency receivers. About 30 miles away, near the town of Driver, ham radio operator Lon Massie and his crew of 11 men maintained close watch over the technical performance of four of NAM's transmitters which operated almost continuously (on 3, 7, and 14 MHz frequencies) for about 12 hours. These transmitters, while being capable of generating nearly 40 kilowatts (KW) of radio frequency power, were run at one KW to simulate emergency power operation levels.

Although NAM transmitted voice single-sideband and radioteletype signals, it was the CW (Morse) positions which favored the attention of guest amateur radio operators such as Clay Hanson of Alexandria, Va., known as W4NPG to his ham radio friends around the world. Another radio "ham" drove down from Ohio. He is Lou Amstutz (W8YNL) who was overheard saying, "There are two annual events for which my XYL (wife) issues an unquestioned kitchen pass—the

Armed Forces Day Exercise and the Dayton Hamvention!"

Visitors to NAM, many of whom are professionally involved in communications, were most favorably impressed by the special operating facilities designed and installed for the exercise by Chief Warrant Officer Dave Hassall, USN, assisted by Mr. John Wileman and a small crew of technicians. Flawless operation of the simulated emergency equipment netted nearly 1000 contacts with amateur radio stations during the first eight hours of operation. While guest amateur radio "ham" operators manned these special consoles, normal NAM station activities proceeded without interruption.

Following the Morse Code translation of the special Armed Forces Day message to all radio amateurs at 25 words per minute, the 1975 exercise was terminated. Thus ended an unusual day of radio operations at NAM. As some tired, but happy, hams headed home, the station crew of NAM began another "normal" duty shift.

For those of who were fortunate enough to have been there, we shall long remember signing on dah dit-dit dah-dah dah. Just as an era of naval communications had been closed with the silencing of NSS, so we had written a small line on the pages of history with the debut of NAM in the Annual Armed Forces Day Communications Exercise.

Look for more of the same next year.

—Peter Hurd, LTCOL, USAF.

Profile of a ship
and its crew

USS Compass Island

An AG? Other than Aerographer's Mate, what's an AG?

That was not an uncommon question around the Charleston Naval Base last summer. That's when *USS Compass Island* (AG 153) arrived in her new home port after 18 years operating from Brooklyn, N. Y.

The "CI" (as she's called by her crew), an experimental navigation ship, was first placed in service as a fast cargo merchant vessel. In December 1956, the Navy acquired the ship from the U. S. Maritime Administration after a decision that a fast "Mariner-class" hull would make the best test platform for precision navigation equipment being evaluated for Fleet use.

Only months after being commissioned, she was underway for tests to evaluate inertial navigation equipment for use in what was to become known as the Polaris program. In the 1960s, the ship played a key role in the development of Poseidon. Currently, she's at sea conducting navigation equipment tests for the

Below left: *USS Compass Island* (AG 153). Center top: CDR Jim Mace, commanding officer. Center bottom: LCDR Jim Howell, special projects department head. Right: ET1 Frank Bannon compares calibration data with ET1 Wayne Danner. Facing page left: ETN2 Randy Downs checks out equipment with aid of ET1 Wayne Danner and ETN2 Frank Moscato. Facing page top to bottom: Launching magnetometer sensor. Civilian engineers at work in ship's Data Analysis Center. ET1 Rick Drown watches ETN2 Kenny Knowles review Navigation Aids Division's test assignments for the day. ETN2 Rick Hawthorne checks out a printed circuit board for breaks.



SSPO in support of the *Trident* system.

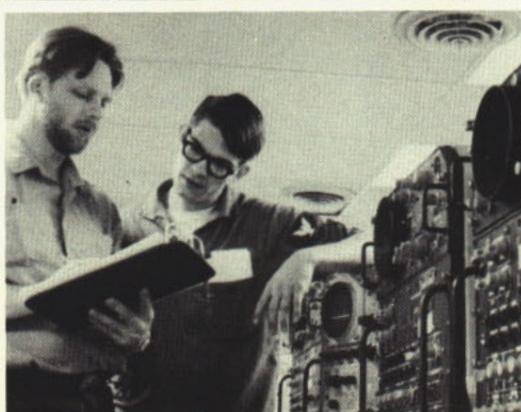
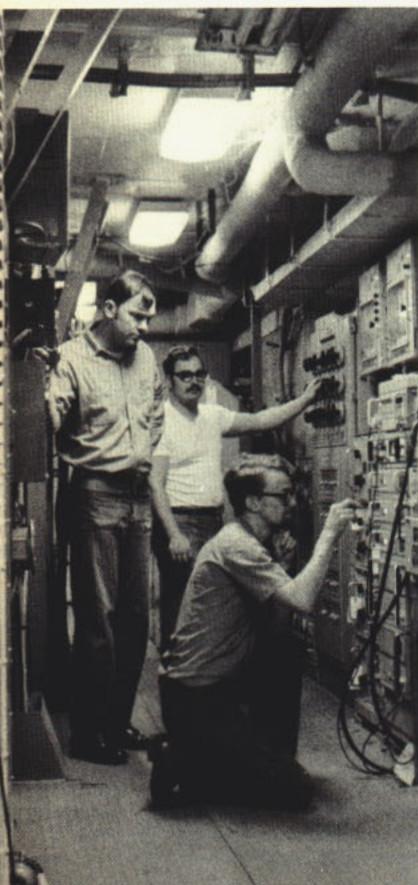
During her conversion, *Compass Island* was specially equipped with roll-stabilizer fins (when similar ships are rolling 20 degrees, in the same seaway *Compass Island* will roll only about two degrees).

The ship is 564 feet long and carries a crew of 15 officers and 225 enlisted men, many of whom are specially trained electronics technicians assigned to the ship's "Special Projects" Department. In addition to the Navy crew, *Compass Island* normally carries approximately 30 civilian engineers and technicians during at-sea periods. Normal operations consist of short but frequent deployments, usually to operating areas off the Atlantic coast.

For the men of *Compass Island*, Navy and civilian alike, deployments are periods of intensive data collection mixed with other periods when there is time in which to relax. On board, some almost-empty cargo holds have made possible a wide variety of recreational activities, including a full-court basketball gym, a weightlifting room, a band room, a library and a live ship's radio station.

A unique ship in many ways, *Compass Island* is proud of the role she has played in the development of the navigation system which is so important to our strategic missile submarine force.

—Story by LTJG James Bullock
—Photos by PH2 Robert Holzhauer



letters

Recruit Ship

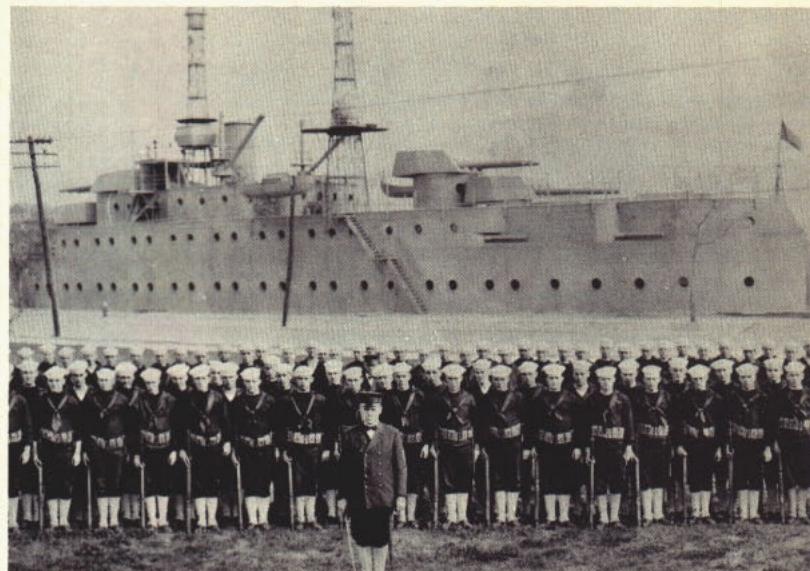
SIR: I do not wish to take away any credit that is rightfully due the training aid *uss Recruit ALL HANDS*, Dec. 1974), however, I would like to keep the record straight. *uss Recruit* was not the first such mock-up, this honor belongs to a scale model battleship constructed at the Norfolk Virginia Naval Operating Base in the early 1920s.

To the best of my knowledge, this ship was called *uss Electrician* and was used to train electrician's mates as well as recruits in general. I also seem to recall that it was dismantled shortly before World War II. Perhaps some "old timers" will write and furnish more facts.—CDR. P. E. T., USNR (Ret)

'Miss Never Sail'

SIR: I was particularly interested in the article, "25th Anniversary *uss Recruit*," which appeared in December 1974 *ALL HANDS*. It stated that *uss Recruit* is believed to be the first such recruit mock-up used to train sailors for shipboard duty.

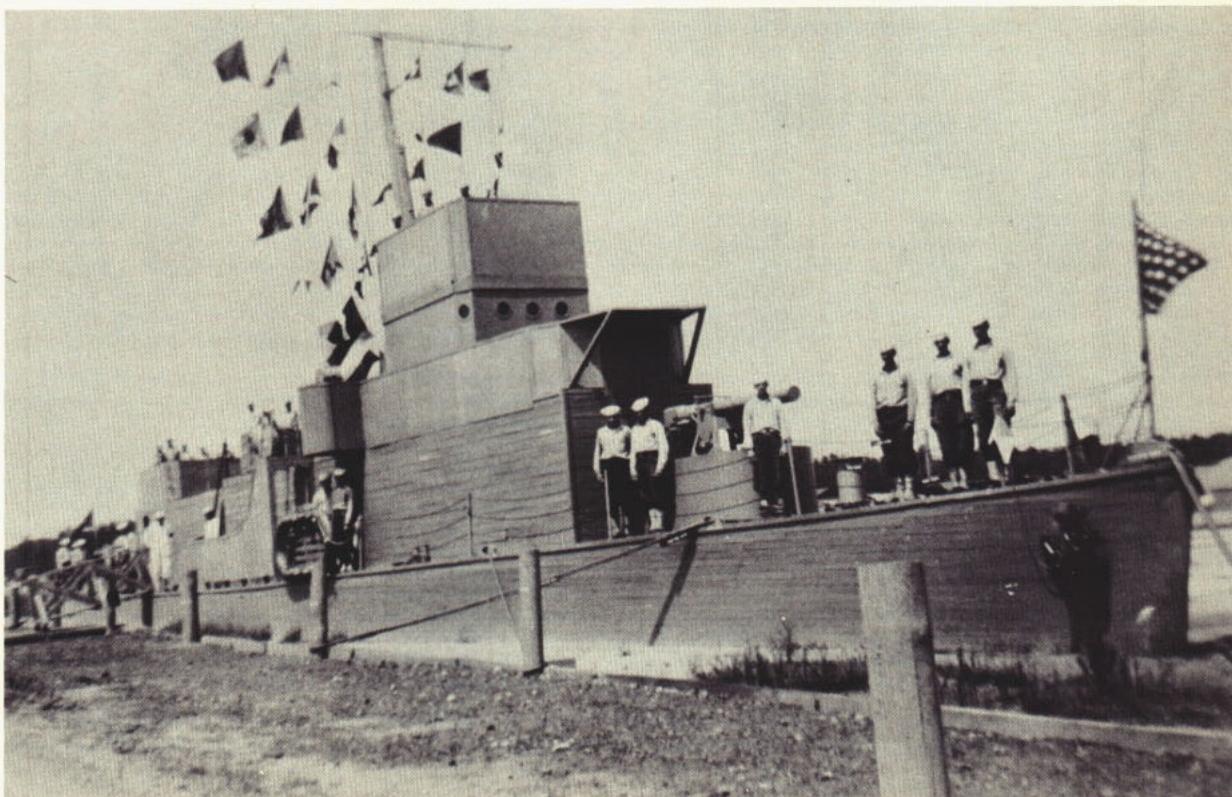
In the fall and winter of 1944 at Camp Peary, Va., we constructed a scaled-down DE that was used for the very



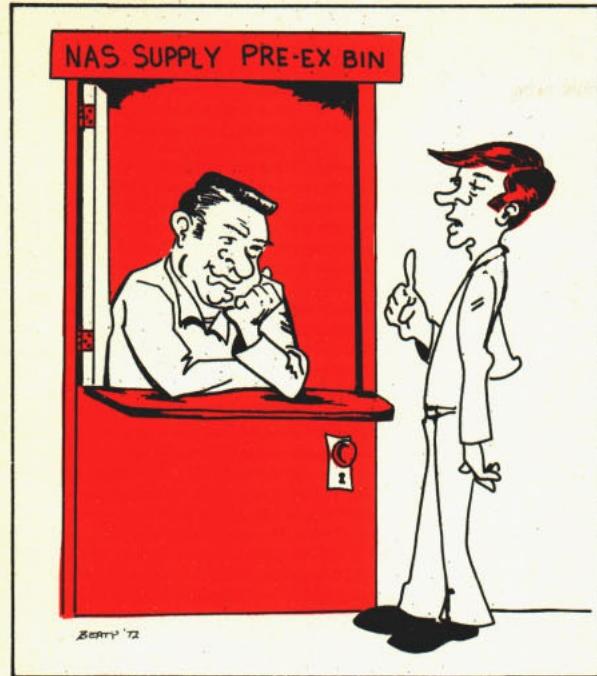
same reason as *uss Recruit* in San Diego. Our crew was composed entirely of sailors that completed 16 weeks of recruit training and basic grammar school subjects. We were fortunate in that some of these men were exceptionally good carpenters in civilian life. Within a period of a few weeks, these men completed the mock-up entirely from scrap lumber and other material, as you can see from the accompanying photos of various stages of construction. Other photos show recruits receiving their

training on board the mock-up after completion. The mock-up was nicknamed "Miss Never Sail" and was still in use when I was discharged in June 1946.

Incidentally, after leaving the Navy I spent 18 years in a Reserve component of the Army with some active duty as a first sergeant, but no military branch compares with the Navy and what it has to offer. Once again, may I say I enjoy *ALL HANDS Magazine* very much.—V. L. Lusk, USNR.



LT Robert A. Beatty



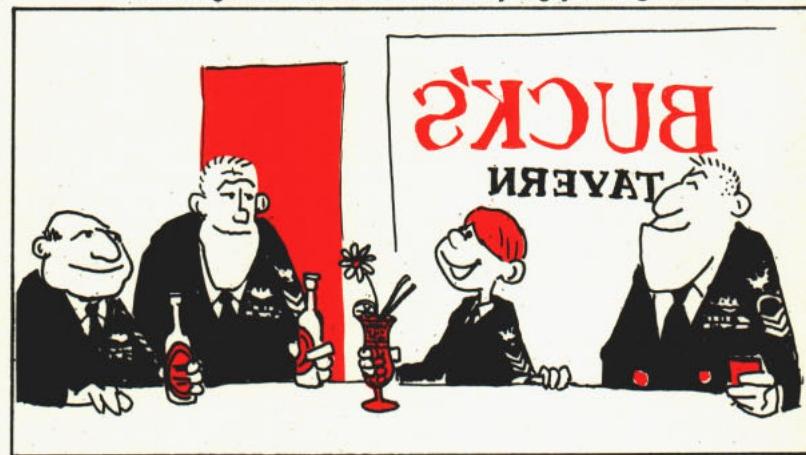
"I need 30 feet of shoreline and a gallon of propwash."

on the
serious side

CTA2 Michael F. Walsh

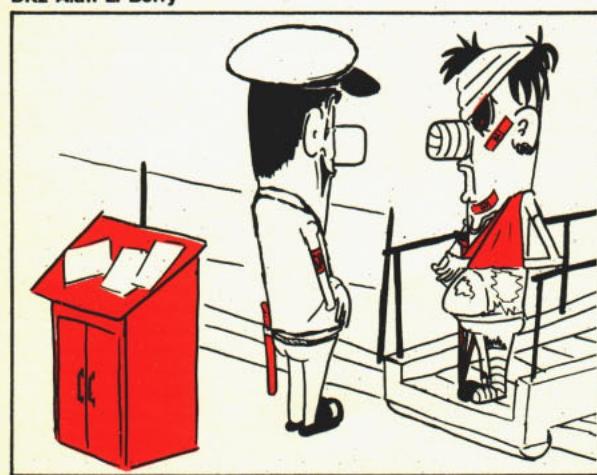


"That's right! I am a nuke! But how did you guys ever guess?"



IC1 Jeremiah H. Paoli

DK2 Alan L. Berry



SK1 Mariano J. Deocampo



TAFFRAIL TALK

In this age when everyone is concerned with ways to save the proverbial "buck," officials at Naval Air Rework Facility (NARF) in North Island, Calif., report they have found a rather simple way to do just that. Sound fishy? You're absolutely right.

This California site is using goldfish to do much of the dirty work around the station's secret radar antennas. "They eat algae deposits in a freshwater tank we use for cooling the tubes of aircraft radar antennas," explained Gerry Boling, NARF's public affairs officer.

Started in 1962, this project was the brainchild of employee Cliff Carter, now retired. He bought several little goldfish that anyone can get in a five-and-dime store. The fish not only did the cleaning, but multiplied over the years and increased in size. Some are now more than a foot long and at least one weighs about four pounds.

Growth of that magnitude is no fish story, according to Harold McClelland, chairman of the Goldfish Society of America. "Given plenty of space, a super-oxygenated atmosphere and a good, nutritious diet, the ordinary goldfish certainly has a potential for that kind of growth," McClelland said. He noted he experiments with goldfish growth projects at his Mission Hills residence.

"The idea of using goldfish to clean algae is not really new," McClelland added. "An electric generating plant in Boone, Iowa, used carp—they are related to goldfish—in the 1920s to keep freshwater tanks clean. Carp and goldfish are great scavengers," he concluded.

* * *

ALL HANDS was saddened to learn that Chief Torpedoman's Mate Harry Morris, a veteran of the Great White Fleet of 1907 and an enlisted man with one of the longest active duty careers (55 years), passed away on the West Coast on 29 June at the age of 87.

The chief, who retired on 1 Feb 1958, served his last tour in San Diego as liaison between the shore patrol and the local police. Of that duty he said, "It's sort of my life's work to attempt to keep Navymen out of all sorts of trouble and this job gives me the chance."

Chief Morris began his service as a 14-year-old Apprentice Boy in Newport, R. I. Entitled to wear the Figure of Eight knot denoting a former Apprentice Boy, he served in a total of 41 ships. His first was the old *Alliance* of Revolutionary War fame—then on the Navy rolls along with *Constitution* and *Constellation*.

A veteran diver, he was ordered to Pearl Harbor shortly after the 1941 attack which signaled America's entry into World War II, to help raise the battleships *USS West Virginia* (BB 48) and *California* (BB 44).

Chief Morris last served as chairman of the Great White Fleet Association, calling together the members for annual reunions. The most recent he called the "last muster." Of the 14,000 who took part in the famous world cruise only about 80 survive.

In one of his letters to ALL HANDS he said, "When I look back through the years I wish we had the chances and opportunities of today, but it is still the same Navy and the same spirit and loyalty and tradition."

The All Hands Staff

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Winking and exhibiting that smugness of one having superior knowledge that "GO (ing) Navy" is the thing to do is Bryan Jacobs, son of JO1 Joel E. Jacobs. Father took the picture, of course.



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